DOCUMENT RESUME

ED 269 348 SP 027 144

AUTHOR Heckman, Paul E.

TITLE Exploring the Concept of School Renewal: Cultural Differences and Similarities between More and Less Renewing Schools. A Study of Schooling Technical Report No. 33.

INSTITUTION California Univ., Santa Barbara. Graduate School of Education.

SPONS AGENCY Institute for Development of Educational Activities, Dayton, Ohio.

PUB DATE 82

NOTE 164p.; For an abridged version of this document, see ED 214 302.

PUB TYPE Reports - Research/Technical (143) -- Information Analyses (070)

EDRS PRICE MF01/PC07 Plus Postage.

DESCRIPTORS Administrator Attitudes; *Educational Change; *Educational Environment; *Educational Improvement; Elementary Secondary Education; *Institutional Characteristics; Job Satisfaction; *Teacher Administrator Relationship; *Teacher Attitudes; *Teaching Conditions

ABSTRACT

Data collected on teacher, classroom, and school characteristics from 38 schools participating in "A Study of Schooling" were analyzed to determine some of the cultural variables that separate schools that are more renewing from those which are less renewing. The following constructs emerged: (1) authority and decision making structures; (2) informal organizations; (3) professionalism; (4) climate; (5) support and resources; (6) communication; (7) leadership; (8) goals; (9) roles and status; (10) rewards; (11) participation; (12) problem-solving orientation; and (13) values and beliefs. A subsample of 18 schools was selected for defining a school as "more" or "less" renewing. A cluster analyses produced three sets of variables: personal/demographic focused; school focused; and class/curriculum focused. Discriminant analysis was used to assess the extent to which the sets of contextual variables thought to be the most important in effecting school renewal differentiated among teachers in "more" as compared to those in "less" renewing schools. Findings indicated that school-level variables, more than individual teacher characteristics, are more critical for school change. Seven pages of references conclude the report. (Author/JD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

EXPLORING THE CONCEPT OF SCHOOL RENEWAL: CULTURAL DIFFERENCES AND SIMILARITIES BETWEEN MORE AND LESS RENEWING SCHOOLS

Paul E. Heckman

Technical Report No. 33

1982

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

P. E. Heckman

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

A STUDY OF SCHOOLING ★ IN THE UNITED STATES ★

SUPPORTED BY

The Danforth Foundation
International Paper Company Foundation
The JDR 3rd Fund
Martha Holden Jennings Foundation
Charles F. Kettering Foundation
Lilly Endowment, Inc.
Charles Stewart Mott Foundation
National Institute of Education
The Needmor Fund
Pedamorphosis, Inc.
The Rockefeller Foundation
The Spencer Foundation
United States Office of Education

Conducted under the auspices of the Institute for
Development of Educational Activities (/I/D/E/A/)
A Division of the Charles F. Kettering Foundation

John I. Goodlad, Principal Investigator

EXPLORING THE CONCEPT OF SCHOOL RENEWAL: CULTURAL DIFFERENCES AND SIMILARITIES BETWEEN MORE AND LESS RENEWING SCHOOLS

Paul E. Heckman

Technical Report No. 33

1982

A Study of Schooling is based upon the assumption that improving schools requires knowing what is happening in and around them. A comprehensive data-base of contextual information was obtained from students, teachers, administrators, parents and observers at all grade levels in thirty-eight elementary and secondary purposively sampled schools. *It is strongly recommended that readers of any technical report in this series first read Technical Report No. 1 which outlines the details, scope and limitations of the Study as a whole.*

It must be understood that this series of technical reports does not constitute the Study. Some reports are highly specific "molecular" inquiries while others take a more "molar" view across data sources, schooling levels, etc. Some reports are more methodological in nature arising out of issues in data analysis. Many of the reports quite naturally overlap in data analysed and interpretations rendered. Some authors have approached their task as consisting mostly of data description with little discussion beyond the presentation of the data. Others have ventured further into the realm of interpretation and speculation. *It must be further understood that data-based inferences can and do differ among researchers who come at the data from differing points-of-view.* Authors, therefore, are duly acknowledged for each report and are responsible for the material presented therein.

BEST COPY AVAILABLE

TABLE OF CONTENTS

Page

LIST OF TABLES v

LIST OF FIGURES vii

Chapter

I. STATEMENT AND CONCEPTUALIZATION OF THE PROBLEM . . . 1

II. REVIEW OF THE RELATED LITERATURE 28

III. METHODOLOGY 55

Sample and Procedure 56

Operationalization of the Constructs 60

IV. ANALYSIS AND RESULTS 77

Analysis 77

The Results 80

V. SUMMARY AND DISCUSSION OF THE FINDINGS 106

Overview of the Study 106

Demographic/Personal Focused Variable Differences 109

School Focused Variable Differences 111

Class/Curriculum Focused Variable Differences. . 116

Implications for Future Research 118

VI. IMPLICATIONS FOR SCHOOL RENEWAL 122

APPENDICES . . . .

A. Data Description for Variables in Subsets A, B, and C 133

B. Descriptive Statistics for All Variables 147

C. Directions for Validating the Grouping of "More" and "Less" Renewing Schools 151

BIBLIOGRAPHY 155

LIST OF FIGURES

Figure Page

1. Data Domains. 61
2a. Personal. 63
2b. Class 64
2c. School. 65
3. Cluster Analysis for All Thirty-Seven Variables 75

LIST OF TABLES

Table Page

1. Total Set of Variables Used in This Study. 73
2. Characteristics of the Eighteen Schools. 81
3. Descriptive Data (Personal/Demographic Focus). 83
4. Descriptive Data (School Focus). 84
5. Descriptive Data (Class/Curriculum Focus). 85
6. Discriminant Loading Coefficients (Personal/Demographic Focus) 89
7. Classification by Discriminant Analysis of More Renewing and Less Renewing Schools for Demographic/Personal Focused Variables 91
8. Discriminant Loading Coefficients (School Focus) 93
9. Classification by Discriminant Analysis of More and Less Renewing Schools for School Focused Variables. 96
10. Discriminant Loading Coefficients (Class/Curriculum Focus) 97
11. Classification by Discriminant Analysis of More and Less Renewing Schools for Class/Curriculum Focused Variables. 99
12. Discriminant Loading Coefficients (All Variables). . . . 100
13. Classification by Discriminant Analysis of More and Less Renewing Schools for All of the Variables . . . 102

7

Chapter I

Conceptualization of the Problem

INTRODUCTION

This study attempts to clarify some elements of schooling thought to be basic to the problem of improving schools. The study leads to the identification of a set of contextual variables appearing to be related to a school's ability to renew. Presumably, what follows will help to illuminate the importance of contextual variables in understanding the renewal and change processes of schools. In the final chapter of this dissertation, several scenarios demonstrating how school teachers, administrators, and change agents might use the identified contextual variables in cultivating renewal in schools are presented.

This is an exploratory study rather than a confirmatory one. As such, the speculations about change strategies will use plausible inferences to develop scenarios regarding the significant variables that differentiate the more renewing and the less renewing schools.

Definitions

The concepts of change, innovation, and renewal must be distinguished so that the focus of this study may be understood. Innovations usually are viewed as improvements to existing school programs or organizations that are measurable, deliberate, durable, and unlikely to occur frequently by chance.[1] Often the installation of an innovation becomes the focus of a planned change. A planned change can be defined as "An intended, designed, or purposive attempt by an individual, group, organization, or larger social system to influence directly the status quo of itself, another organism, or a situation."[2] These planned changes and/or innovations may come in the form of an organizational change which affects the structure, technology, and personnel of the total organization.[3] All of the above, although related concepts, must be differentiated from the concept of organizational renewal. Organizational renewal is the process of initiating, creating and confronting needed changes so as to make it possible for organizations to become or remain viable, to adapt to new conditions, to solve problems, to learn from experiences, and to move toward greater organizational maturity.[4] The *culture* of the school is used as a way to view the school as a total organism and thereby guide the selection of relevant contextual variables. *It is used as a heuristic, rather than in its pure anthropological meaning*. Contextual variables become the sources from which the culture of the school can be inferred.

This study focuses primarily on the renewal of the total school culture and the definition of a renewing organization set forth above. The other terms provide an understanding of the effects of renewal. Organizational change, either planned or unplanned, may emerge as a consequence of renewal efforts on the part of school staffs; and, certainly, innovations may grow and evolve from renewal efforts.

Background

For over a decade, educational policy makers have shared a paradigm[5] called the RD&D model designed to describe and guide the creation and implementation of educational change and innovation. The model[6] views teachers and schools as passive agents or targets. Essentially, the paradigm begins with theoreticians and researchers involved with basic investigations into problems they view as important. Programs are then developed, experiments and field tests are conducted and then programs are disseminated to the public schools.[7]

This paradigm guided expenditure of millions of dollars of federal funds for the development of investigations into the characteristics of successful innovations. The policymakers also looked for a way to implement successful programs in innovation. A recent investigation by Berman and McLaughlin illustrates this philosophy underlying change models: ". . . (they) reflect our belief that over time the innovative 'plan' will become developed, operationalized, often revised, and, in short, 'adapted'; according to the realities of its institutional setting. With this reality in mind, we define implementation as the change process that occurs when an innovative project impinges on an organization. By so defining implementation, we shift focus of research away from measuring compliance or the degree to which a project fulfills its stated 'goals.' Instead, we ask what changes actually occur as a result of the introduction of a new project, how and why they occur, and what significance these changes hold for the operation of the organization."[8] R & D research, therefore, rests on the assumption that change occurs when something comes to the organization--in this case, the school.

Berman and McLaughlin,[9] Goodlad,[10] House,[11] and Sarason[12] challenge this assumption. They focus instead on the need for the change to arise from the school and those persons most familiar with its "culture"-- the teachers and principal. This idea emerged, as Goodlad states, " . . . from my observations pertaining to the propensity for change efforts to come from outside, to focus on teachers or groups of teachers or the school system as a whole, and to neglect schools as total entities. Subsequent observations strengthened these tentative conclusions and added the propositions that the school has a distinctive culture, that this culture is ignored or poorly understood by change agents coming from a different milieu, and that there rarely is a critical mass of responsible persons within this culture seriously engaged in its continuing renewal. The hypothesis, tested as a principle, is that the single school, with its principal, teachers, and pupils as primary participants, is a key unit for educational change which, under certain conditions, can become a responsive dynamic entity in a process of renewal."[13]

STATEMENT OF PURPOSES

This study is designed to be exploratory--to identify key contextual variables--and to see to what extent these variables can distinguish between more and less renewing schools.

Specifically, in this study, I will attempt to do the following:

1. Present a conceptualization of variables thought to reflect the culture of a school and select the variables from those used in A Study of Schooling that match the elements listed in this conceptualization.
2. Identify significant contextual variables that match the change literature and that characterize the schools in A Study of Schooling as renewing.
3. Operationalize criteria pertaining to renewal for grouping schools from A Study of Schooling into two sets: one group comprised of schools distinguished as more renewing and the other as less renewing.
4. Analyze the differences between these two groups of schools using the array of selected contextual variables.
5. Describe the variables that account for the most variance between these two groups and speculate about the implications of these contextual variables for change.

To achieve the stated purposes of this study, a large data base that examined the context of schooling was needed. A Study of Schooling data base met this criterion. A Study of Schooling attempted to describe 38 schools with a relatively large set of selected variables thought common to most schools. The need for such description was based on the assumption that improving schools required knowing what was happening to them. Such an assumption proceeded from two findings of John Goodlad's Study of Educational Change and School Improvement. First, school staffs can improve their schools by selectively reaching out for ideas from outside of the school when they have help and guidance from an informed and caring outside resource. Second, and related to the first, the incentive to move to these new ideas seems to require knowledge of the existing school program, awareness of alternatives, and examination of the discrepancies between these two.[14] Consequently, A Study of Schooling gathered data about existing conditions in 38 schools, using a large set of variables defined for the purpose of understanding schooling, with a focus on school improvement. This orientation matches well the purpose of this study.

Finally, this data set seemed an appropriate one from which to select variables and data for this study because the author participated as a staff member in the conceptualization, instrumentation, and data collection phases of a Study of Schooling. He understands the nature of the data and the procedures used to collect them.

Even though A Study of Schooling gathered views of the school from teachers, students, parents, and other community members, the current study deals only with data from the teachers. While it is true that parents and students impact the culture of a school and that both, consequently, are important, the investigation of data from all of these sources is beyond the scope of this study. Instead, this study focuses on those who most directly affect the renewing capacities of the school--the teachers.

IMPORTANCE OF THE STUDY

School renewal is important for several reasons. First, parent, community, and teacher interest in school innovations appears today to be at a low ebb. As a matter of fact, it seems that negative reaction to the innovations of the past is the rule. Such a mood justifies the need for schools that can meet ever changing conditions; whether they are for or against innovation. Second, even though schools appear now to react against the innovations of the past, schools exist in the milieu of the late twentieth century which has been characterized as full of "change, revolution, turmoil, and rootlessness."[15] Organizations, including schools, therefore, must accommodate sudden changes of all sorts.

Finally, people expect more from all institutions, the schools not excepted. Accordingly, schools "now must not only catch up to these expanding demands, but they also can look forward to continuous renewal throughout the foreseeable future so as to meet and hopefully anticipate the demands to come. Moreover, institutions from one point of view reflect the spirit of man and from another mold his quality of life. Consequently, the ideas and attitudes of men also must catch up with today's expanding demands, as well as stand ready for continuous renewal in the tomorrows that can now be only dimly envisioned."[16]

Many studies of educational change by-pass these premises and, instead, study schools to determine the conditions that will allow for particular innovations to be implemented and adopted in a school setting and/or diffused throughout a network of schools.[17] It may be that renewing schools do adopt and implement innovations more easily but this study advocates that schools renew so that they can better meet their ever-changing needs; not because they are better targets for innovative practices and programs designed and developed away from the school site.

A RATIONALE FOR EXAMINING CULTURAL FACTORS RELATED TO RENEWAL

There exists a large body of data and many concepts about organizational change and, in particular, about school renewal. Some of these data and concepts derive from studies conducted in agronomy in the fifties. These studies suggested, for example, that change agents begin innovations with the early adopters and only tackle the laggards at the very last.[18] Still other data and concepts proceed from recent studies in education that posit that renewal and innovation occur in schools in which teachers own the ideas of the innovation, the school principal supports the idea, and the staff work well together.[19] Yet, even with these helpful ideas, school renewal perplexes many because public schools appear to change so little. Consequently, many propose radical policies, such as the voucher plan, in order to correct this situation and to create responsive alternative schools.[20]

Some inquiries, previously mentioned, have proposed that a narrow view of school renewal results from our inability to apply a research base and change concepts to schools, and thus to make changes.[21] We often try to identify the appropriate variables related to and/or causing school renewal, and then assume that these variables can be pushed like buttons to promote renewal. For example, researchers have made much of the need for good communication among teachers. Some practitioners now attempt to promote communication among teachers in schools. They assume that if schools, teachers, and principals develop good communication channels then renewal will occur. Even if communication does characterize successful renewal projects, could it be that another concept lies beneath this structural concept and accounts for the renewal?

Sarason suggests that we look beyond structure to the culture of the school. He proposes that this culture underlies some of the difficulties and successes with renewal in schools, instead of structural variables such as decision-making, class size, communication patterns, and types and number of in-service program.[22]

CONCEPTUALIZATION OF THE CULTURE OF RENEWING SCHOOLS

Those who use this concept of the culture of the school view its use metaphorically. They understand that the school culture does not reflect all guides by which members of that school live. Instead, it highlights the larger culture of the community without which the school culture could not exist. Accordingly, anthropologists explore the relationship between school culture and the larger community culture. They examine the congruities and incongruities between the two, pointing out, for example, that more learning occurs when children experience two congruous cultures.[23] This study focuses only on the culture within the school but it recognizes that the school's cultural roots are in the larger community. In addition, this study uses the concept of the culture of the school as a heuristic for identifying contextual variables that may relate to renewing schools. This heuristic, perhaps, can provide a way for examining school life, for getting a handle on the complexities of schools, and for anticipating the interactions and relationships that exist in schools. Thus, this next section defines and expands on the concept of culture so that it can be used in this fashion.

The Culture of the School

The concept of the culture of the school derives from the ideas embedded in the general meaning anthropologists have ascribed to culture. Culture as a heuristic can be understood, perhaps, as a view rather than as a definition. Consequently, this study will view culture as the guides for behavior. Implicit in this view is Bourdieu's perspective on rules or guides. He understands that culture is more than the set of rules one could derive from any set of behaviors in the culture. This larger perspective he calls a cultural disposition: "a disposition inculcated in the earliest years of life and constantly reinforced by calls to order from the group. The cultivated disposition, described in the body schema and in the schemes of thought which enable each agent to engender all the practices consistent with the logic of challenge and riposte, and only such practice, by means of countless inventions, which the stereotyped unfolding of a ritual would in no way demand."[24]

Willard Waller, in his classic, The Sociology of Teaching, introduced the idea of the culture of the school. "There are, in the school, complex rituals of personal relationships, a set of folkways, mores, and irrational sanctions, a moral code based upon them. There are games, which are sublimated wars, teams and an elaborate set of ceremonies concerning them. There are traditions and traditionalists waging their world-old battle against innovations. There are laws, there is the problem of enforcing them. There is Sittlechkeit. There are specialized societies with a rigid structure and a limited membership. There are no reproductive groups, but there are customs regulating the relations of sexes. All these things make up a world that is different from the world of adults. It is this separate culture of the young, having its focus in the school which we propose to study. To work out all the details of the culture would be a task long and difficult, and, for our purpose, not altogether necessary. We shall be content to make out the main lines of the cultural background of school life."[25]

Several points need to be made about Waller's comment. First, a school does have a culture. Second, this culture would not be present if the culture did not exist in the surrounding community. The school culture is a consequence then, of the larger culture surrounding the school. Third, Waller chooses to focus on the youth culture of the school, avoiding a description of the total school culture because of the complexity of the task. The complexity of the total school culture has presented a problem to many social scientists. They have failed to identify the variables that one might examine in describing the total culture of the school.

Some have tried to identify the variables, albeit incompletely. For example, Sarason uses existing regularities as the concepts from which he infers the school's culture.[26] He illustrates a regularity by the following example:

> Let us start with one of the more obvious regularities. Our outer-spacer will discern (but not understand) that for five consecutive days the school is densely populated while for two consecutive days it is devoid of humans. That puzzles him. Why this 5-2 pattern. Why not a 4-3 or some other kind of pattern like 2-1-2-1-1.[27]

Sarason expands on this idea of existing regularities by differentiating between programmatic regularities and behavioral regularities. He illustrates programmatic regularities by pointing to the fact that in schools children regularly receive instruction and practice in the use and understanding of numbers. A behavioral regularity relates to the frequency of overt behaviors such as "Laughing, crying, fighting, talking, concentrating, working, writing, question-asking, question-answering, test-taking and performance, stealing, cheating, unattending--these are some of the overt behaviors that occur with varying frequency among children in school. That they occur is important to and expected by school personnel."[28]

Like Sarason, Goodlad sees the culture of the school as a heuristic; he promotes understanding the culture as imperative to promoting change and renewal in the school; and he defines programmatic regularities as one of several elements of the school's culture.[29] He goes further than Sarason to suggest:

> We now see everything constituting the culture of the school--its operational curriculum, written and unwritten rules, verbal and nonverbal communications, physical properties, pedagogical regularities, principal's leadership behavior. . . [30]

If one accepts Goodlad's view that culture is everything, does that acceptance negate the previous definitions that culture can be seen as a cultivated disposition. I think not. School culture can be inferred from everything that happens in the school and I have previously referred to the variables describing "everything" as contextual variables. Cultivated dispositions are inferred from contextual variables, *but these dispositions are not everything*. Goodlad's view can be clarified for purposes of the conceptualization proposed by separating the concept of culture which can be inferred from data about the school from the body of data per se. As noted above, context is used to describe everything. The elements that Goodlad calls culture constitute, instead, the context. This context contains the cultural dispositions but is not the culture. ASOS recognized the importance of the context to do this.

> The very idea of culture turns the attention of the social scientist to the characteristics peculiar to a specific group--to the total pattern of human behavior in a given setting. For us, then, the variables to be studied in seeking to understand schools are those found within the context of schools. Our theoretical perspective for inquiry, to the degree we have one, might be described as a contextual one.[31]

Even though parts of the culture can be inferred from these contextual variables, a culture is a systemic whole. This view can be illustrated by an analogy used by Kroeber and Kluckholn:

> Take a brick wall. Its 'reality' would be granted by all save those who follow an idealism of Berkeley's sort--they would deny it even to the bricks. Then let us take each brick out of the wall. A radical, analytic experiment would be in all consistency obliged to say that we have destroyed nothing. Yet it is clear that while nothing concrete has been annihilated, a form has been eliminated . . . Each culture is, among other things, a complex of relations, a multiverse of ordered and inter-related parts. Parts do not cause a whole but they comprise a whole, not necessarily in the sense of being perfectly integrated but in the sense of being separable only by abstraction.[32]

So it is with cultivated dispositions.

These cultivated dispositions exist in schools. Teachers and principals do certain things as a consequence of their shared schemes of thought. These schemes, some of which are explicit, while others are implicit, are inferred from the structures of the school and the behavior (including attitudes, expectations, and feelings) of the individuals within the school (the context). This culture manifests itself in these structures and behaviors, in every aspect of the school, for that matter.

Contextual Variables from Which to Infer Cultivated Dispositions of A School

So far, this first chapter has described some general characteristics of school cultures and extended a view of culture to a view of school culture. The task now is to briefly identify specific elements of schools that have renewing potential as contextual variables. But first, the school culture must be placed in the context of some of the trends in the sociological literature on schooling. Some of this literature focuses on three concepts. These are the culture of the school, the culture of the class, and the culture of the larger society. Neil Gross exemplifies these three by labeling them as "a formal organization, the classroom as a social system, and the community as the external environment of the school."[33]

Halsey and Floud proposed similar concepts. They discussed three levels of inquiry: the macrocosmic level (the relationship of the school to its community--the values, demography, economy, and political system); the school (values, demography, economic and political structures of the school), and the microcosmic level or the class level (social relationships and the use of authority in learning situations).[34] The levels relevant to this study are the school with a focus upon the relationships among students, teachers, and administrators within the school but outside of the classrooms and the class with a focus upon the actors inside of the class. The community aspect and its relationships to the school are the subject for another study.

Consequently, recall that, for the purposes of this study, the culture of the school is used as a way for selecting significant contextual variables to relate to school renewal and this culture is viewed as cultivated dispositions that impact on teachers, students, and administrators in the school. These dispositions manifest themselves in the many aspects of the school. In order to describe what the culture of any school is, it would be necessary first to describe the many behaviors, attitudes, feelings, etc. of the individuals within the school and the structures of the school, including those within the class. Once these are identified, they can be thought of as contextual variables. From these contextual variables culture would be inferred. But, on what behaviors and structures does one focus?

Anthropologists and sociologists have provided some help in answering this question. After reviewing the work of some of these scholars, however, it was obvious that their work would have to be synthesized. Jules Henry focused only on the cultural aspects of the classroom;[35] Hope Leichter used and added additional questions to Henry's work as she conceptualized the role of family as educator;[36] and Miles,[37] O'Shea,[38] Taylor,[39] and others identified critical organizational variables that should be considered in studying the culture of schools. Together, these variables could constitute an array of concepts that could comprise a set of contextual variables. Consequently, this next section considers the work of these people and proposes a set of elements that synthesizes their work and outlines elements of a culture of a school.

Elements Of A Culture Of A School

Jules Henry outlines twelve questions which may guide the selection of contextual variables. "The outline . . . deals primarily, though not exclusively, with children about six years of age and older, and concentrates on the formal, conscious aspects of education."[40] The twelve questions are:

I. On what does the educational process focus?
II. How is the information communicated?
III. Who educates?
IV. How does the person being educated participate?
V. How does the educator participate?
VI. Are some things taught to some and not to others?
VII. Discontinuities in the educational process?
VIII. What limits the quantity and quality of information a child receives from a teacher?
IX. What forms of conduct control (discipline) are used?
X. What is the relation between the intent and the results of education?
XI. What self-conceptions seem reinforced?
XII. How long does the process of formal education last?[41]

Hope Leichter examined these twelve questions and others as she discussed and conceptualized the role of the family as educator. She added four additional questions.

1. Who teaches and learns with and from whom?
2. What are the procedures for evaluating and marking the outcomes of schooling?
3. How is time organized?
4. What are the pedagogic and educative styles of the teachers and learners?[42]

From these questions, certain contextual variables will emerge.

In addition to these questions, Miles, O'Shea, and Taylor, among others, identified additional organizational structural variables which they examined in order to determine the systemic characteristics of the school and which may serve them as contextual variables. For example, teachers, students, and administrators hold particular norms and beliefs. Some of these include:

-the principal is to defend his teachers from encroachment from the outside.

-classrooms should be quiet and orderly.

-few, if any collegial visits are encouraged.

-students and teachers are to remain socially and personally distant.

-depending upon the student, school is for fun, for academics, or for delinquency.

Thus, the norms and beliefs of the students, teachers, and administrators become an additional consideration for selecting contextual variables.

Certain personal variables of the teachers and administrators also appear important for consideration. For example, the patterns of association among teachers and of other relationships may be influenced by the subject the teachers teach, the grade level at which they teach, the number of years of experience they have, and their educational background.[43]

Not only are some of the personal characteristics of the adults important to include, but so are particular task accomplishment mechanisms of the school.[44] These mechanisms consist of such things as the teachers' expectations of the principal; their perceptions of other teachers; and the teachers' knowledge of goal setting and goal attainment procedures--e.g., setting objectives and developing learning activities that match the behaviors of the objective and the activity.

This limited literature review of possible contextual variables constitutes the basis for selecting elements of school culture. The elements that follow are based upon the twelve questions asked by Henry. These questions were combined with Leichter's questions and the variables identified by Miles, O'Shea, and Taylor. By consolidating these sources, the following potential constructs of the culture of the school evolved:

-People who teach

-Things being taught

-Things being learned

-People learning

-Teachers' attitudes about work

-Students' attitudes about the school

-Space

-Time

-Communication

-Rules and regulations

-Norms

-Criteria for success

These constructs outline the larger categories of contextual variables. They constitute the parameters within which to infer the culture of the school. Within these larger categories, more specific contextual constructs are found. For example, under the element, space, variables that address how space _is_ used and how it _should_ be used would be grouped under this category. Thus, for any inquiry, we would generate one or more items for each specific contextual construct. Or, in the case of an existing data set, the items used in the study would be grouped under these twelve elements. These items, then, would constitute a set of contextual variables from which one might infer the culture of the school.

This last case is exactly the one that applies to this study. An existing data set will be used. The variables of A Study of Schooling which match the culture constructs--people who teach, things being taught, people learning, teachers' attitudes, etc.--will be selected and they will constitute the contextual variables of this study. Given this conceptualization, the questions of this study can now be stated.

QUESTIONS OF THE STUDY

The study is an exploratory one. Rather than confirming hypotheses, this study explores an existing data set for hypotheses. Such exploratory research is a necessary step when a problem such as the one described in this dissertation is undertaken.

> As all detective stories remind us, many of the circumstances surrounding a crime are accidental or misleading. Equally, many of the indications to be discerned in bodies of data are accidental or misleading. To accept all appearances as conclusive would be destructively foolish, either in crime detection or in data analysis. To fail to collect all appearances because some--or even most--are only accidents, would, however, be gross misfeasance deserving (and often receiving) appropriate punishment. Exploratory data analysis can never be the whole study, but nothing else can serve as the foundation stone--as the first step.[45]

The view that the culture of the school may hold some promise for discovering inhibitors to and promotors of school renewal is a recent trend. The circumstances surrounding renewal remain obscure. The exploratory question addressed by this study is: What are some of the cultural characteristics that describe and, perhaps, differentiate schools which are more renewing from schools which are less renewing? Dealing with this question necessitates addressing several others:

1. What criteria differentiate more and less renewing schools and how can these criteria be operationalized with the data collected in A Study of Schooling?
2. Which of the 38 schools of the sample in A Study of Schooling can be characterized as more renewing and less renewing using the criteria developed under question #1?
3. Of all of the variables about which data were collected in A Study of Schooling, which are the ones to be used as

contextual variables in differentiating more renewing from less renewing schools?

4. To what extent do the selected contextual variables characterize and, perhaps, differentiate the teachers in these two groups of schools?

THE SCOPE AND LIMITATIONS OF THE STUDY

Several aspects of the study limit it. First, this is not an ethnographic study and in no way attempts to describe the culture of the school; it attempts to apply the culture concept in school renewal. Even though the culture is used as a heuristic to guide the selection of contextual variables, the study does not describe the culture of the schools in the sample. Some speculations are made about the impact of the culture of the school on promoting or inhibiting renewal in the schools of the sample. Recall that culture is inferred from the structures of the school and the behaviors, attitudes and feelings of those in the school. The speculations result from an inference process.

This inference process is, however, not meant in the formal statistical meaning but in a less formal and general sense. This general meaning could be construed as a second limitation of the study. Rather, the writer argues that this type of inference will strengthen the findings. This general meaning can be illustrated by a metaphor that Cronbach borrowed from Tukey. The metaphor equates bridge builders and investigators. He suggests that if "clients (of a bridge builder) want to go from one bank of a river (their present state of knowledge) to a point on the opposite shore . . . The investigator builds a bridge not (to the point on the opposite shore) but to a (spot) that lies somewhere in midstream. He sets one foot on the span . . . on the solid bank of observation, and welds a formal statistical span from (the shore to the island). The client can place much reliance on that span, so far as it reaches. The client must supply the reasoning or speculation that connects the island to the final destination. Neither the data nor the original argument provide support over the distance. The client must cover it on the power of other knowledge or suppositions about the phenomena."[46]

This other knowledge is a consequence of plausible inference. Something is plausible, according to Cronbach ". . . if violations are believed to be so limited in their consequences that the risk of error is acceptable. Of course this belief may be wrong but every assertion about the real world rests on unverifiable presumptions."[47]

These plausible inferences stem from a belief system that has propositions derived from experience. Some of these propositions are believed strongly; while others are held lightly. The statements of this belief system refer to consequential differences among events as a result of the experiences the holder of the belief system has had with the constructs. The fact that the constructs are thought to be significantly different make the constructs of the belief system like scientific constructs.[48]

Cronbach urges the reader to see that formal and plausible inference are equally useful, but different. In this regard, the inferences made in this dissertation will be of the plausible type.

This does not limit the speculations made about the findings as much as it enriches them by using the belief system and experiences of the writer. These experiences and beliefs emanate from the writer's experiences in schools and with the data set.

REFERENCES

1. A. M. Huberman, Understanding Change in Education An Introduction UNESCO:IBE 1973, p. 5.

2. Gordon L. Lippit, Organizational Renewal, New York: Appleton-Century-Crafts, 1969, p.1.

3. Ibid.

4. Ibid.

5. I use paradigm in its general sense as used by Thomas S. Kuhn, The Structure of Scientific Revolutions, Chicago: The University of Chicago Press, 2nd edition, 1970.

6. Kenneth A. Tye and Jerrold M. Novotney. Schools in Transition The Practitioner as Change Agent, New York: McGraw-Hill Book Company, 1975, p. 194.

7. Ernest R. House. The Politics of Educational Innovation, Berkeley, California: McCutcheon Publishing Corp., 1974 p. 215.

8. Paul Berman and Milbrey Wallin McLaughlin. Federal Programs Supporting Educational Change, Vol. 1: A Model of Educational Change, p. vii, Sept. 1974.

9. Ibid.

10. John I. Goodlad. The Dynamics of Educational Change, New York: McGraw-Hill Book Company, 1975.

11. House, p. 216.

12. Seymour B. Sarason. The Culture of the School and the Problem of Change, Boston: Allyn and Bacon, 1971.

13. Goodlad, p. 171

14. John I. Goodlad, "What Goes On In Our Schools?" Educational Researcher, March 1977, p. 5. For a detailed discussion of the study see, John I. Goodlad, Kenneth A. Sirotnik, and Bette C. Overman, "An Overview of a Study of Schooling," Phi Delta Kappan, 61, 3, November, 1977, pp. 174-178.

15. Robert T. Golembiewski, Renewing Organizations-The Laboratory Approach to Planned Change. ITASCA, Illinois: F.E. Peacock Publishers, Inc., 1972, p.2.

16. Ibid. p. 4.

17. Berman and McLaughlin, op. cit.

18. Everett Rogers, "What are Innovators Like?" *Theory into Practice*. 2:252-256, December, 1963.

19. Berman and McLaughlin, op. cit.

20. John E. Coons and Stephen D. Sugarman. *Education by Choice: The Case for Family Control*. Berkeley: University of California Press. 1978.

21. John I. Goodlad, *The Dynamics of Educational Change*, op. cit.

22. Seymour B. Sarason, op. cit.

23. Charles A. Valentine, *Culture and Poverty Critique and Counter Proposals* Chicago: The University of Chicago Press, 1972.

24. Pierre Bourdieu. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press, 1977. p. 15.

25. Willard Waller, *The Sociology of Teaching*, New York: John Wiley and Sons, Inc., 1932, p. 103.

26. This notion of regularities agrees with the early work of Kroeber and Kluckholn. See A. L. Kroeber and Clyde Kluckholn, *Culture: A Critical Review of Concepts and Definitions*, Cambridge, Mass.: The Museum, 1952, p. 168.

27. Seymour Sarason, op. cit., p. 63.

28. *Ibid*., p. 71.

29. Goodlad, *The Dynamics of Educational Change*, p. 113.

30. *Ibid*.

31. John I. Goodlad et al., "An Overview of A Study of Schooling" Technical Report No. 1, *A Study of Schooling*, Bloomington, Indiana: Phi Delta Kappa, 1979.

32. Kroeber and Kluckholn, op. cit., p. 63.

33. Neal Gross, "Some Contributions of Sociology to the Field of Education", *Harvard Educational Review* 29,4. Fall 1959, p. 275.

34. Jean Floud and A. H. Halsey, "Education and Social Structure: Theories and Methods", *Harvard Educational Review*, 29,4, Fall 1959, p. 291.

35. Jules Henry, *On Education*. New York: Random House 1971, p. 72.

36. Hope Jensen Leichter, "Families and Communities as Educators", Teachers College Record. 79,4. May, 1978, pp. 567-657.

37. Matthew B. Miles, "Some Properties of Schools as Social Systems", in Goodwin Watson (ed.) Change in School Systems, Washington, D.C.: COPED NEA, 1967.

38. David O'Shea and Mark Ginsburg, "School as a Social System," in International Encyclopedia of Psychiatry, Psychology, Psychoanalysis, and Neurology. 1977.

39. James Taylor, "The Social System", Human Systems Development Study Center, University of California, Los Angeles. April, 1977.

40. Henry, op. cit., p. 72.

41. Ibid.

42. Leichter, op. cit.

43. O'Shea and Ginsburg, op. cit.

44. Miles, op. cit., p. 2.

45. John W. Tukey. Exploratory Data Analysis, Reading, Massachusetts: Addison-Wesley Publishing Company, 1977.

46. Lee J. Cronbach. "Validity of Inference in Applied Social Research", in Helge Dahl et al. Spotlight on Educational Problems. 1980, p. 46.

47. Ibid., p. 49.

48. Ibid., p. 54.

Chapter II

Review of the Related Literature

INTRODUCTION

This review focuses on three different types of literature: literature dealing with school change, innovation, and renewal; literature that criticizes the rational view of school change and suggests instead a cultural view of school change; and literature that identifies variables used in the study of schools and schooling, of teaching as work and schools as workplaces, of implementation of innovations. An investigation into the first type of literature places the exploratory question of this study--what cultural characteristics describe and, perhaps, differentiate schools which are more renewing from schools which are less renewing--within the context of the literature on school change, innovation, and renewal.

LITERATURE ON CHANGE, INNOVATION, AND RENEWAL

The first chapter made a distinction among the concepts of innovation, planned change, organizational change, and organizational renewal. The point of that distinction is that organizational renewal may promote the adoption and implementation of particular innovations, planned changes, and/or organizational changes. The purpose for organizational renewal, however, is for the particular organization to develop the power or ability to respond to the many problems it faces, to develop alternatives that respond to these problems, and to achieve its stated purposes. Organizational renewal is not the adoption of a change but the development of the capacity to change. "It is also the process of bringing the results of change in line with [the school's] purpose. When our forebears invented the motor car, they had to devise rules of the road. Both (innovation and change) are phases of renewal."[1]

The focus of much of the research on innovation and change over the past two decades has not been on renewal but on diffusion, adoption, and implementation of particular innovations and changes. These studies centered on the individual and groups of individuals. They attempted to determine the characteristics of individuals most likely to accept an innovation or change or the characteristics of innovations so they would get accepted by an individual or individuals.[2]

This focus on adoption and diffusion guided the creation of federal legislation that encourages innovation in education. Gross examined six programs created under the guidelines of this federal legislation using a case study approach.[3] He discovered eight impediments to organizational change efforts. Among these were the following:

- Failure to diagnose the problem properly
- Failure to anticipate or resolve implementation problems
- Ad hoc approach to educational innovations
- Uncritical acceptance of exciting innovations
- Absence of monitoring and feedback mechanisms
- Lack of teacher and community involvement
- Inadequate planning
- Absence of leadership

Goodlad and Klein also found failures when they looked behind classroom doors for the innovations of the 1960's (ESEA Title III programs, SMSG Math ESS). They found few of the espoused characteristics of these programs in practice even though many of the school people said they had adopted the innovation or change.[4] Charters and Jones were to later label this a non-event.[5]

Such findings caused some to look at the conditions of implementation rather than to adoption. Those who did this made a distinction between implementation and adoption. Fullan and Pomfret did this and reviewed 27 studies of implementation from 1970 to 1974. They concluded that implementation is poorly conceptualized and measured.[6]

Subsequent inquiries attempted to remedy this problem by attending to the characteristics of implementation. First, Fullan and Pomfret reexamined 12 of the 27 studies that they had reviewed earlier plus 3 additional studies and inferred five components of implementation from these studies. The five components are: (a) changes in subject matter or materials, (b) changes in organizational structure, (c) changes in role/behavior, (d) changes in knowledge and understanding, and (e) changes in value internalization--all of these vis-a-vis a particular idea or development.[7] Second, others suggested steps for bringing about implementation. These included planning for implementation, applying change strategies, and conducting staff development.[8]

These studies indicate that the school change literature has moved from a focus on the diffusion and adoption of an innovation toward identifying significant aspects of the implementation of an innovation. "Implementation" poorly describes the processes of a renewing school because the purpose for implementation is to get an innovation into the school exactly as the developers intended or to modify the innovation so that it is still faithful to the concepts of the initial design but palatable to those in the school. The purpose of renewal is to develop the capacity to change.

LITERATURE THAT LEADS TO A CULTURAL VIEW OF SCHOOL CHANGE

There is another problem with the concept of implementation. It is based on a research-development-diffusion model of change (RD&D). This model moves from theoreticians and researchers investigating problems they view as important; someone associated with these researchers and theoreticians develop programs and experiment and field test them, and, then, if demonstrated feasible, they disseminate the programs to the public schools.

This model has received criticism that usually revolves around the fact that change does not seem to go through a linear process. Instead, schools and the people in them have their own ideas for change and, therefore, deflect or ignore many of the missiles shot at them. Dalin states:

> " . . . Complex organizations in a dynamic environment have to reflect a variety of basic issues if they are to find solutions to contemporary and future problems. Moving from a stable to a dynamic situation would mean that the organization is moving from being primarily a hierarchical goal-oriented organization to a survival-oriented organization. It is no longer possible to think that one can prescribe

> certain objectives and goals for the organization as the only guidelines for its activities. Unforeseen problems, new situations, and future uncertainties increasingly make it necessary for the organization constantly to re-address itself to the problems."[9]

Arthur Wise responds more critically to this rational model than Dalin. He sees a total disjuncture between this rational model and the realities of schools. This disjuncture results in what Wise calls hyper-rationalization, a process by which the bureaucratic characteristics of most schools cause them not to achieve their goals. Scientific management techniques are adopted to make the organization achieve its goals. It fails to meet the goals and more rational techniques are tried. "To the extent that this process causes more bureaucratic overlap without attaining the intended policy objectives, it results in what I shall call the hyper-rationalization of the schools."[10]

The alternative model to this RD&D model of change is a responsive model of school change. It enfolds research and development, also. "The school becomes responsive to its needs and, increasingly, to services relevant to these needs. Outside resources become increasingly responsive to the needs of the school and increasingly creative in devising ways to help."[11]

The renewing school becomes an integral part of this model of educational change and innovation.[11a] Since the renewing school continually senses and adapts to the conditions inside and outside of the school, it is a responsive school. House sees bringing the invention, production, and distribution of innovations closer to the people who must use them.[12] This would get done in a renewing school.

Dale Mann has raised the question, What is done with the many recalcitrant staffs who may choose to do nothing? In that event, he suggests that some outside agency might intervene.[13] Yet, by intervening, the self-determination of a renewing school fades and, instead, the reluctant school staff must now implement something from the outside.

Because a responsive model of change is characterized by the following critical ingredients, this paradox can be prevented.

1. Single schools with their pupils, teachers and principal (the primary participant) become the unit for educational change.
2. Some change oriented activity must occur on the part of the primary participants of the school.
3. Some outside caring unit must view as important the initiation and refinement of a process that entails decision-making, action, and evaluation.
4. There must be a compelling, different drummer whose drumbeat somehow is picked up by the school's antenna. The sounds must be intriguing, challenging, countervailing, perhaps disturbing, but most of all they must be difficult to ignore.
5. The alternative drummer must be perceived as a long-term player.
6. There must be a supportive peer reference group within the school so that it will support the deviation from the estab-

lished expectations and the procedures of the school.

7. Communication networks with other innovative schools must be constructed.

8. New knowledge, new skills, and new patterns of behaving will be required so that the school can respond to the stimulation for change.[14]

Consequently, a responsive model of change becomes integral to the concept of a renewing school. Renewing schools are the focus of this study, and the next section details some of the literature regarding them.

Renewing Schools

The idea of a renewing school is of an ideal-type. It is a concept in wait of a practice. Some have attempted to operationalize it but have fallen short. This section will first describe this ideal type and then describe several studies that have attempted to operationalize the concept.

Matthew Miles in 1967 defined a renewing school as one that " . . . would have the ability to continuously sense and adapt to its changing external and internal environment in such a manner as to strengthen itself and optimally fulfill its goal of providing quality education for children."[15]

Renewing schools have also been described as adaptive,[16] receptive,[17] responsive,[18] autonomous or self-innovating,[19] and problem solving.[20] Whatever the title a renewing school has the following characteristics:

1. *A problem-solving capacity--solves present and future* problems.
2. A harmony between institutional and individual values.
3. A responsiveness to the external environment of the school.
4. Innovations formulated to respond to its problems.[21]

Usually, the attempts to operationalize this concept have focused on increasing the school's problem-solving capacities by employing an organization development perspective. This has not necessarily resulted in more renewing schools. "The jury is still out on whether OD actually enhances the responsiveness of schools or whether it is better than other techniques for doing so in actual practice. Research in the area is still meager although it is improving. In fact, research cannot tell us unequivocably whether OD works or not. What we have is considerable evidence that OD does work and that it works in developing responsive schools."[22]

Beyond these OD inquiries, the literature on renewal is sparse. In a computer search of the ERIC File, the writer found one hundred and seventy relevant citations to this present study using the key words of change, innovation, and renewal.

One hundred sixty-four dealt with the adoption and implementation of particular innovations; only six focused on renewal. If renewal is an important concept, adoption and implementation of particular innovations seem to have drawn more attention, given the number of entries in the literature.

Unfortunately, five out of the six studies, discovered using the ERIC data base, investigated only the problem-solving processes that schools used or should have used.[23] One of the six studies examined the political and economic dimensions of a large scale Australian federal government program on renewing schools.[24] It focused on the preconditions of renewal and reform and identified six preconditions, all of which focused on the general education community.[25]

Beyond the ERIC search, the most useful citation in discussing significant variables of renewing schools to study was a paper presented at the International Seminar on Strengthening School Capacity for Change in the Netherlands, November 21-23, 1979. The paper outlines some of the variables likely to characterize a renewing, or in the author's words, an autonomous school. These include a supportive principal who facilitates communication among staff and the external environment; collaborative planning which includes participation and evaluation by all staff members; an increase in the professional behavior of each teacher; and social cohesiveness.[26] Even though the author used some variables that came from studies of the adoption and implementation of change and innovation; and not from an examination of existing renewing schools, he used them in such a way that the conceptual integrity of a renewing school remained intact.

The Culture of the School

Since the specification of aspects of a renewing school remains incomplete, a look toward other concepts and literature seems necessary. One of these concepts is the culture of the school.

> 'The school as culture' is merely a convenient metaphor, but an enormously useful one for understanding schools and for improving them . . . The school is too interdependent with its larger ecosystem to be a clearly identifiable self. The people in a school make up only a temporary culture, for part of the time they fill other roles in the same ecosystem (some of which they perceive to be more important in their lives than their school roles). If the culture of the school is to become dynamic, to the point of enjoying the description of 'self renewing', those in it must perceive their roles, activities, and rewards as significant. But we must not deceive ourselves into thinking that the idea of a self-renewing school, or of the culture of a school is anything other than a metaphor.'[27]

This metaphor of the culture of a self-renewing school has importance in understanding renewing schools. "Culture not only shapes our perceptions but our values as well. It is likely, therefore--indeed it is very likely--that when we seek to change that reality, we leave untouched or unexamined the cultural givens that are the underpinnings of our perceptions and activities. Concretely, when we attempt to change the educational system in its intra- or intersystemic aspects, we run the risk that we are leaving unexamined the cultural givens."[28]

If schools are to become more renewing and if the cultural metaphor is to be used in moving schools toward renewal, Sarason's view that the culture of the school must be changed rather than particular parts of the school must be taken seriously. When changes in programs occur, for example, some presume that the cultural givens will change. Rosenblum and Seashore illustrate this view in their study:

> . . . we found that high levels of staff collegiality were conducive to successive implementation and that high levels of classroom autonomy exerted a negative influence on the implementation process. These related findings suggest a first step in approach and a program of innovation: installing mechanisms that will increase colleagiality and reduce classroom autonomy. More frequent staff meetings, the creation of staff teams, and the installations of formal coordinating structures are only a few devices that will increase the interdependence of staff members.[29]

Other studies of adoption and implementation make the same point.[30]

But they neglect the fact that the variables they find significantly related to adoption and/or implementation do not always get at critical elements of the problem--the culture of the school. The variables on which these studies focused are structural variables. Social structure, for example, is the manner in which the individuals organize themselves according to the cultural values and norms.[31] Social structure then manifests culture and may serve as a data source from which to infer the culture of a school. It is, however, a mistake to presume that by changing the social structure, the culture has changed. The culture of the school must change because it appears to dispose school staffs toward or away from renewal. Consequently, a cultural view of a renewing school seems appropriate for determining the variables that might be examined in differentiating more and less renewing schools.

LITERATURE THAT IDENTIFIES VARIABLES USED IN THE STUDY OF SCHOOLS AND SCHOOLING

In the conception put forward in the first chapter, the cultural concept is used as a heuristic to define the variables of this study. Since culture carries with it the idea of the total school, all aspects of a school could therefore be viewed as the sources of the culture. Instead of using all possible variables, which could number in the tens of thousands, the work of Henry[32] and others are used to delineate the constructs of the school's culture. Any variables that could be derived from these constructs would then be used as cultural variables in the present study. In addition, the teachers, principals, and their work environment seem the most important aspects of the school to study when trying to understand the renewal concept.

School organizational variables have been studied by both organizational and educational researchers. This section reviews some of that literature with the purpose of identifying significant variables that have been used in the study of schools and that could serve as cultural variables in this study. Three types of literature will be examined in this section: literature on the study of formal organizations, literature on the study of schools and classrooms, and literature on the study of teaching as work and the teacher's workplace.

Formal Organization Studies

Some early formal organizational studies focused on bureaucratic characteristics of organizations[33] and, as such, they used these characteristics to delineate the significant variables.[34] These variables included authority structures, decision-making and problem-solving structures, professionalism, informal groups, cohesiveness or social climate, communication (social interaction), leadership (including use of authority), communication styles, and supervision; and the goals of the organization.[35]

Studies of Schools and Classrooms

Three studies of schools use similar variables. In the first study conducted by Shipman, he focused on the division of labor (a bureaucratic variable). For him, sex and age became major divisions of labor variables. He also examined roles and status, authority, goals of the schools, informal organization, communication, and rewards.[36]

The second study, conducted by Rutter et al, examined twelve inner city London schools and examined three groups of variables:

1) Physical features and administrative aegis (who governs--the state or the locals)

2) Social organization of the schools

3) Ecological variables--the external factors surrounding the school (e.g. the public's general attitudes toward schools).[37]

The significant group of variables that relate to this study are the social organization variables. After correlating these variables with their outcome measures (student attendance, and behavior--e.g. truancy--success in public examinations, and levels of delinquency), Rutter et al found that " . . . to an appreciable extent children's behavior and attitudes were shaped and influenced by their experiences at school and, in particular, by the qualities of the school as a social institution."[38] Some of these qualities included:

1. In the less successful schools teachers perceived being left alone or with little guidance or supervision in the area of planning for instruction.[39]
2. Teachers in more successful schools perceived that they received adequate clerical help.[40]
3. The successful school appeared to have good morale and adequate support for the teachers.[41]
4. In successful schools teachers agreed that administrators made the decisions rather than the staff, but the teachers viewed that their views were taken into account when the decisions were made.[42]
5. A cohesive social group was important to the success of a school and, therefore, teachers need to "take responsibility in, to feel rewarded by and to identify with the school."[43]

The third study is Metz's comparison of two desegregated schools (good and bad desegregated schools). The schools varied on the following variables: goals, the work process (the technology), the social structure, the environment, authority structures, teaching philosophies, and the leadership of the principal.[44]

In summary, the following variables seem important: authority, decision-making/problem-solving structures, professionalism, informal groups/ organization, cohesiveness and support, climate, communication, leadership, goals, division of labor (age/sex), roles, status, rewards, resources, morale, and beliefs (teaching). These variable realities relate to the literature to be reviewed next.

Studies of Teaching as Work and the Teacher's Workplace

Perrow has called for comparisons of organizations on the basis of the work that the organization's members do.[45] Several studies have done just this. In a discussion of the school as a workplace, Dreeben characterizes school workplaces according to authority relations, autonomy, and rewards and punishment.[46] In trying to do the same thing, Pellegrin focused on professionalism, authority (power), autonomy, influence structures (decision-making), constraints (problems such as lack of resources and lack of time), division of labor (e.g. teacher and principal), and tasks (e.g. instructing, planning, evaluating, meetings, professional development).[47]

In an earlier review of the literature on teaching as work, Lortie noted two contructs that received much attention in the literature: authority relationships and teacher sentiments toward their work settings.[48] He criticized some of this focus because

> Too many studies tell us of relationships between weak, exotic variables and researcher-centered dimensions of sentiment and values; in balance we have too few studies which explore the subjective world of teachers in terms of their conception of what is salient . . . we have yet to 'map' the general outlines of teacher viewpoints and relate them to basic social variables.[49]

Lortie took his own criticism to heart and, later, addressed the meanings teachers gave to and the sentiments that they had about their tasks. He examined the following areas: views of teacher tasks, views of their resources, beliefs of their work, views of interpersonal relationships (with colleagues), and views of the principal.[50]

So far, this review has placed the present study within the context of the change literature. It presented criticisms of the adoption and implementation of innovations literature by examining the concept of renewal and suggesting that school renewal be viewed as part of a responsive model of change, in contrast to the linear model of change (e.g., RD&D). This led to the review of the culture of the school and a proposal for a cultural view of change. The last section focused on studies of formal organizations, of schools, and of teaching as work and the teachers' work so that potential organizational variables could be used in a cultural view of the school.

To summarize, the variables listed below derive from the literature reviewed and can join with the elements of the culture of the school mentioned in the first chapter. These include:

-authority structures
-decision-making structures
-informal ogranizations
-professionalism
-morale, cohesiveness, climate
-support and resources
-communication
-leadership

-goals

-division of labor (age and sex)

-roles and status

-rewards

-beliefs

LITERATURE ON VARIABLES USED IN STUDYING ADOPTION AND IMPLEMENTATION OF INNOVATIONS

The last part of this review will summarize the variables noted in the change literature as important to promoting adoption and implementation of innovations. These variables will comprise an additional screen for selecting variables from the data set of A Study of Schooling. The additional screen appears necessary because the focus of this study is on the renewing capacities of schools. The change literature has suggested variables that characterize schools that have successfully implemented particular innovations. The renewing characteristics of a school--the ideal-type--would include an openness to innovation but with the proviso that the innovation address the particular needs and problems of that school. Openness to these innovations might also indicate an awareness of a different drummer. Consequently, one part of a renewing school will be its propensity toward adopting and implementing innovations that address the school's needs and problems. Therefore, organizational, teacher work, and other variables that relate to a school's propensity for the adoption and implementation of innovations will be included as cultural variables of a renewing school.

Fullan and Pomfret note several characteristics of adopting units (that have effectively implemented an innovation) in their review of the literature. They use the Rand study[51] as a pivotal set of findings. Berman and McLaughlin found that " . . . high morale of teachers at a school, active support of principals,[52] and general support of superintendents all increased the chances of teacher change and perceived success."[53] The reviewers then discovered findings from other studies that related to the Rand findings. These included teacher participation, including greater involvement in decision-making, high peer communication, and administrative support.[54] This focus on participation raised an issue for Fullan and Pomfret when they questioned the construct of participation.

> In short, the best research on implementation that we could find tells us very little about one of the most theoretically prominent independent variables in the innovation literature. Questions about the nature, timing, scope, and intensity of participation are left unanswered.[55]

Fullan and Pomfret also identified a group of demographic and personal variables related to implementation. These included social class and rural-urban characteristics of the level of schooling, and individual characteristics of the teachers.[56] They reported that schools in urban areas appear to implement innovations more than those in rural areas. They suggested that researchers investigate more closely this rural-urban dichotomy.[57]

They made the same recommendation for individual teacher characteristics. They found some evidence for examining teachers' value orientations and previous training but found little impact for age and level of education.[58] A focus on professionalism was also found related to implementation.[59]

Another study highlighted the need for support for teachers involved in the implementation of an innovation. In three case studies, Sussman found varying degrees of help and support related positively to more implementation.[60]

After reviewing studies on change and reform, Corwin put forward five constructs that any analysis of change should take into account.[61] These include:

1. the task structure of the organizations involved which include their goals, role structure, and incentives used.
2. their status system and the status identities of their members including their social backgrounds, technical competence, and values.
3. the economic resources available to the organizations and the way they are allocated.
4. the distribution of power and the internal processes used to resolve conflicts.
5. the occupational setting.

One additional review needs mentioning. In discussing linking processes, Lieberman summarized three major studies that emphasize additional variables for consideration. These variables included participation, communication, chances to learn new behaviors, development of local materials, and support from the principal.[61] She also focused on the importance of a problem solving orientation. To her this meant " . . . developing activities that will increase individual capacity to identify and clarify problems, to identify alternatives, to develop criteria with which to judge alternatives, to try out solutions, to evaluate their utility, and start again--regardless of the substance that is being offered."[62]

In sum, to the important variables summarized on page 14 of this chapter, can be added the following:

-support

-participation

-values and beliefs

-problem-solving orientation

In addition, certain school demographic variables seem important: social class, urban-rural distinction, and the level of schooling (elementary or secondary).

REFERENCES

1. John Gardner, *Self-Renewal: The Individual and the Innovative Society* New York: Harper and Row, Perennial Library, 1971, p. 7.

2. Ronald G. Havelock, *Planning for Innovation Through Dissemination and Utilization of Knowledge*, Ann Arbor, Michigan: Center for Research on Utilization of Scientific Knowledge, Second Printing January, 1971 pp. 10-1 - 10-53. Miles views adoption in the same way. Matthew Miles, "Innovation in Education: Some Generalizations" in Matthew Miles, "Innovation in Education" New York: Bureau of Publications Teachers College, Columbia University, 1964, and W. W. Charters, and Roland T. Pellegrin, "Barriers to the Innovation Process: Four Case Studies of Differentiated Staffing," *Educational Administration Quarterly* 9 no. 1, Winter, 1972, p. 13. Neal Gross, "Theoretical and Policy Implications of Case Study Findings about Federal Efforts to Improve Public Schools," *The Annals of the American Academy of Political and Social Science* vol. 434, November 1977.

3. Neil Gross, Joseph Giacquinta, and Marilyn Bernstein, *Implementing Organizational Innovations: A Sociological Analysis of Planned Educational Change*. New York: Basic Books, 1971, p. 40.

4. Goodlad and Klein, *Looking Behind the Classroom Door*. Worthington, Ohio: Jones Publishing Co., 1970. Similar findings are reported in B. R. Heller and R. S. Barrett *Expect and Improve . . . A Critical Review of the FIrst Three Years of ESEA Title I in New York City* New York: Center for Urban Education, July 1970; Gross, et al; and Michael T. Wargo et al, *ESEA Title I: A Reanalysis and Synthesis of Evaluation Data from Fiscal Year 1965 through 1970, Final Report*, Palo Alto, California: American Institutes for Research, March, 1972.

5. W. W. Charters Jr., and John E. Jones. "On the Risk of Appraising Non-Events in Program Evaluation", *Educational Researcher* November, 1973.

6. Michael Fullan and Alan Pomfret, *Review of Research on Curriculum Implementation*, United States: National Institute for Career Education. April, 1975. p. 121.

7. Michael Fullan and Alan Pomfret, "Research on Curriculum and Instruction Implementation." *Review of Educational Research* Winter 1971 vol. 47 no. 1 p. 361.

8. Jerry L. Patterson and Theodore J. Czajhowski, "Implementation: Neglected Phase in Curriculum Change," Educational Leadership vol. 37 no. 3, Dec. 1979 p. 204. Giacquinta found the similar components of initiation of the innovation, implementation; and incorporation as a stable part of the organizational structure. Joseph B. Giacquinta, "The Process of Organizational Change in Schools Review of Research in Education, vol. 1, 1973.

9. Per Dalin, Limits to Organizational Change. New York: St. Martin's Press, 1978, p. 56. James D. Thompson and William T. McEiven assert a similar idea. They posit " . . . that goal setting behavior is purposive but not necessarily rational; we assume that goals may be determined by accident, i.e., by blundering of members of the organization and, contrariwise, that the most calculated and careful determination of goals may be negated by developments outside the control of organizational members." James D. Thompson and William McEivers, "Eleven Organizational Goals and Environment: Goal-Setting as an Interaction Process," in Ralph L. Blankenship Colleagues in Organization, the Social Construction of Professional Work, New York: John Wiley and Sons, 1977, p. 291.

10. Arthur E. Wise, Legislated Learning, Berkeley: University of California Press, 1979, p. 47. Ernest House has called hyper-rationalization, the technocratic paradigm of innovation. Ernest R. House, The Politics of Educational Innovation Berkeley, California: McCutchan Publishing Company, 1974, p. 213.

11. John I. Goodlad, The Dynamics of Educational Change. New York: McGraw-Hill Book Company, 1975, p. 175.

11a. Ibid.

12. House, p. 305.

13. Dale Mann, "The User-Driver System and a Modest Proposal," in Dale Mann (ed.) Making Change Happen New York: Teachers College Press, 1978, p. 285.

14. Goodlad (1975) pp. 175-184.

15. Matthew B. Miles and Dale G. Lake "Self-Renewal in School Systems: A Strategy for Planned Change" p. 82 in Goodwin Watson (ed.), Concepts for Social Change, Washington, D.C.: Cooperative Project for Educational Development, NEA. 1967.

16. Willis D. Hawley, "Horses Before Carts: Developing Adaptive Schools and the Limits of Innovation" p. 230 in Dale Mann (ed.) Making Change Happen New York: Teachers College Press, 1978.

17. Mary Bentzen, Changing Schools: The Magic Feather Principle New York: McGraw-Hill Book Company, 1974, p. 64.

18. Goodlad (1975) p. 196.

19. Philip J. Runkle and Richard A. Schmuck, Transforming the School's Capacity for Problem Solving Eugene, Oregon: Center for Educational Policy and Management, 1978.

20. R. Vandenberghe, "The Autonomous School: Two Approaches" International Seminar on Strengthening School Capacity for Change. November 21-23, 1979, The Hague, Netherlands.

21. See Hawley, p. 235; and Goodlad, p. 175.

22. Albert E. Roarh and Wallace E. Dairs, Jr., "Staff Development and Organization Development" in Betty Dillon-Peterson (ed.) Staff Development/Organization Development p. 55 Alexandria, Va: Association for Supervision and Curriculum Development, 1981.

23. These studies include:

   ·Marc Bassin and others, "Developing Renewal Processes in Urban High Schools," Theory into Practice v. 18, n. 2, pp. 73-81, April, 1979.

   ·Philip J. Runkle and others, Transforming Problems in Urban Schools into a Capacity for Solving Problems Eugene, Oregon: Center for Educational Policy and Management, 1978.

   ·Philip J. Runkle and others, Transforming the School's Capacity for Problem Solving Eugene, Oregon: Center for Educational Policy and Management, 1978.

   ·Richard A. Schmuck and others, Renewing Urban Schools, Eugene, Oregon: Center for the Advanced Study of Educational Administration, 1979.

   ·Robert T. Simmelkjaer, "Evolution of our Urban Educational Reform," The Educational Forum, May, 1979. v. 43 n. 4 pp. 461-483.

   ·Stephen Wilson, An Introduction to the Reform Strategy Which Stresses the Development of Urban School Capacities for Problem Solving. Paper presented at the Annual Meeting of the American Educational Research Association, Toronto, Canada, March 1978.

24. D. Cruz, J. V. and P. J. Sheehan The Renewal of Australian Schools: A Changing Perspective in Educational Planning (second edition) Australian Council for Educational Research, 1979.

25. Kenneth R. Howey, "Preconditions for Educational Renewal and Reform," Journal of Teacher Education vol. 26 no. 1 pp. 6-11 Spring 1975.

26. Vandenberge, op. cit. pp. 3-7.

27. John I. Goodlad, "An Ecological Approach to Change in Elementary School Settings," The Elementary School Journal vol. 78 no. 2 p. 103, November, 1977.

28. Seymour Sarason, "A 'Cultural' Limitation of System Approaches to Educational Reform," American Journal of Community Psychology vol. 5, no. 3, 1977.

29. Sheila Rosenblum and Karen Seashore Louis. A Measure of Change: The Process and Outcomes of Planned Change in Ten Rural School Districts, Final Research Report. A part of Evaluation and Documentation of Experimental Schools Program for Small Schools Serving Rural Areas. ABT Associates Oct. 23, 1978 p. 331.

30. Gross, Patterson, and Czajhowski, and Paul Berman and Milbrey Wallen McLaughlin, Federal Programs Supporting Educational Change, vol IV: Factors Affecting Implementation and Continuation, Santa Monica, California: The Rand Corporation R-1589/7-HEW, April, 1977 to name a few.

31. Robert K. Merton, Social Theory and Social Structure New York: Free Press 1968. p. 216 See also Sady, p. 31 in A. L. Kroeber and Talcott Parsons "The Concepts of Culture and of Social Systems". The two authors make the point that culture and social systems should be viewed as different concepts that should remain analytically discrete without "prejudice to the question of which is more 'important,' 'correct' or fundamental, if indeed, such questions turn out to be meaningful at all." p. 582. I believe the same can be said for social structure and culture.

32. Henry has described some of these elements or constructs in Jules Henry, "Education of the Negro Child" in Murray L. Wax, Stanley Diamond, and Fred O. Gearing, Anthropological Perspectives in Education New York: Basic Books, 1971 p. 284 John H. Chilcott also lists some of the same elements in John H. Chilcott "The School as a Cultural System," in John H. Chilcott, Norman C. Greenberg and Herbert B. Wilson (eds.) Readings in the Social Cultural Foundations of Education Belmont, California: Wadsworth Publishing Company, 1968. pp. 245-247.

33. Lawrence Cremin, The Transformation of the School. Not everyone agrees with Cremin. Shipman states that descriptions of school cultures sum up an impression, not of particular aspects, but of the total pattern of life, culture, within it. The building and equipment of schools may be identical, but their cultures differ, being the result of traditions built up by successive intakes of individuals, interacting with one another under the influence of patterns already established. M. D. Shipman, The Sociology of the School London: Longmans, Green and Co. Ltd 1968. p. 25.

34. Charles Perrow, "A Framework for the Comparative Analysis of Organizations," American Sociological Review v. 32 p. 205.

35. For example, Ronald G. Corwin, "Education and the Sociology of Complex Organizations," in Donald A. Hausen and Joel E. Gerste On Education: Sociological Perspectives New York: John Wiley and Sons, 1967 pp. 156-223 and Charles E. Bidwell, "The School as a Formal Organization" in James G. March (ed.) Handbook of Organizations. Chicago: Rand McNally and Company 1965 pp. 994-1003. Finally, Blau states that most organizations possess administrative machinery and, therefore, are labeled bureaucratic organizations. Peter M. Blau and W. Richard Scott. Formal Organizations, San Francisco, California: Chandler Publishing Company, 1962, p. 7.

36. Michael B. Katz, Class, Bureaucracy, and Schools. New York: Praeger Publishers, 1974, p. 56.

37. See Blau and Scott, op. cit., pages 27, 37, 60-61, 89-93, 100, 108-110, 117, 165-176, and
Corwin, pages 7, 10, 32
Peter M. Blau, The Dynamics of Bureaucracy, Chicago: The University of Chicago Press, revised edition, 1966, p. 237, p. 254, p. 259, p. 260.

38. Shipman, op. cit., p. 47, p. 48-60, p. 121-135, p. 150-157, p. 160-162, p. 162-163, p. 163-165.

39. Michael Rutter et al., Fifteen Thousand Hours: Secondary Schools and Their Effects on Children, Cambridge, Massachusetts: Harvard University Press, 1979, pp. 95-96.

40. Ibid., p. 179.

41. Ibid., p. 136.

42. Ibid.

43. Ibid., p. 137.

44. Ibid., p. 138.

45. Ibid., p. 193. Rutter et al.'s findings relate to Schlecty's view: "Cohesiveness is a relative concept and when applied to groups it is usually stated in terms of more or less. Small groups tend to be more cohesive than larger groups--including some organizations--are more cohesive than others." Phillip C. Schlecty Teaching and Social Behavior: Toward an Organizational Theory of Instruction. Boston: Allyn and Bacon, Inc., 1976, p. 75.

46. Mary Haywood Metz *Classrooms and Corridors: The Crisis of Authority in Desegregated Secondary Schools*, Berkeley: University of California Press, 1978. p. 16-18, p. 18-21, 22-22, 22-26, 26-32, p. 65-68, pp. 188-218.

47. Robert Dreeben. *The Nature of Teaching Schools and the Work of Teachers*, Atlanta: Scott Foresman Company, 1970, p. 57-66, 66-75.

48. Roland T. Pellegrin, "Schools as Work Settings" in Robert Dubin (ed.) *Handbook of Work, Organization, and Society* Chicago: Rand McNally College Publishing Company, 1976, p. 347-352, p. 355-356, p. 357-359, p. 360, p. 364-365, and p. 365.

49. Dan C. Lortie, "Observations on Teaching as Work," in R. M. Travers (ed.) *Second Handbook of Research on Teaching*, Chicago: Rand McNally, 1973, p. 483.

50. *Ibid*., p. 490.

51. Dan C. Lortie, *Schoolteacher: A Sociological Study*, Chicago: The University of Chicago Press, 1975.

52. Paul Berman and Milbrey McLaughlin, "Implementation of Educational Innovations," *Educational Forum*, 1976, 50 (3) 347-370.

53. Leila Sussman, *Tales Out of School*, Philadelphia: Temple University Press, 1977, p. 218.

54. Fullan and Pomfret, (1977), op. cit., p. 383.

55. *Ibid*., pp. 383-384.

56. *Ibid*., p. 376.

57. *Ibid*., p. 384.

58. *Ibid*., p. 385.

59. *Ibid*., p. 385.

60. Rosenblum and Seashore-Louis, op. cit., p. 331.

61. Sussman, op. cit., p. 219.

62. Ronald G. Corwin, *Reform and Organizational Survival, The Teacher Corps as an Instrument of Educational Change*. New York: John Wiley and Sons, 1973, p. 351.

63. Ann Leiberman, "Linking Processes in Educational Change," pp. 161 in Nicholas Nash and Jack Culbertson, Linking Processes in Educational Improvement Concepts and Application. Columbus, Ohio: University Council for Education Administration, 1977. These relate to Glaser and Taylor's work in which they tried to determine successful projects of NIMH. They found high communication, awareness, and involvement within and outside the immediate environment as the important variable. Edward M. Glaser and Samuel H. Taylor, "Factors Influencing the Success of Applied Research," American Psychologist February 1, 1973, p. 145.

CHAPTER III

Methodology

This study analyzes relevant data from the data bank of A Study of Schooling. This is an appropriate one to use for the purposes of the present study. First, A Study of Schooling attempts to describe many aspects of schools--a total of 38 elementary, junior high and senior high schools. In the effort to study these schools, the idea of the culture of the school attracted the principal investigators and formed the conceptual framework within which to collect data. Thus, the idea of culture and context pervaded the perspectives of those selecting the variables of A Study of Schooling. These ideas match the conceptual perspective proposed here.

Second, A Study of Schooling proposed to study schools for the purpose of generating hypotheses rather than confirming them. This study posits a similar position. Little is known about the contexts of adults and children who live and work in schools.

Finally, as one of the staff members who participated in the conceptualization, instrumentation, and data collection phases of A Study of Schooling, the author believes that this existing data set is an appropriate one to use because of his familiarity with it. He understands the nature of the data and the procedures used to collect them. He has a commitment to this type of inquiry. For these several reasons, the existing data set was used to select variables and data for this study.

Sample and Procedure

The data to be reported in this study are, then, part of the larger body of data collected in A Study of Schooling. The 38 schools (13 high schools, 12 junior high or middle schools, and 13 elementary schools) were purposively sampled to represent stratification factors such as school size, race/ethnicity of students, community economic status, and community location (i.e., rural, urban or suburban). These schools came from most of the major geographic regions of the United States.

For this study, eighteen schools were selected as a subsample of the 38 schools. The selection was based on the degree to which the schools met criteria for a "more" or a "less" renewing school. These criteria grew out of the following definition of a renewing school: it is one that attempts to solve (and often succeeds in solving) its own problems and has a continuous process of improvement based upon staff designed alternatives that meet the needs of those in the school. The criteria operationalizing this definition were based on interview responses given by teachers to the question, "What is the most important change that has occurred at this school in the last three years (or since you have been here, if a newer teacher)?"

Two types of responses to the interview characterized "more" renewing schools: (1) teachers identified specific problems and perceived these as amenable to change and (2) teachers expresses relatively positive sentiments toward the changes that were made in response to these problems. In "less" renewing schools, teachers identified less specific and often generalized problems, and concern that the problems seemed unmanageable. For example, comments like the following dominated the interviews of the teachers of more renewing schools:

> -"Change in principal. Reorganization from former system of multi-grade homeroom to the single grade. Done away with trivial paperwork, teachers' meetings, etc. Tightened up the discipline. Change of attitude on the part of the teachers to a more positive one."
>
> -"Curriculum. We set up different programs for the kids. Fine Arts, Vocational, College Prep, Regular High School Program, Remedial Program. We try to identify students and place them where their needs are met."
>
> -"Practical science program for remedial readers. Benefits are that kids who are turned off by science get an opportunity to succeed and learn for the first time."

Compare the above with the following comments that characterize the interviews of the teachers at schools grouped as less renewing:

> -"I can't think of anything--I can't think of anything better. It just gets harder teaching as a whole. I do not think our administration gets out into the building to see what is going on. If they do appear, it's after everything has cleared."
>
> -"Change in the type of student. Less ability to deal with basics, reading, math, etc. School is a kind of social playground and I don't see any change."

> -"Team not working. Some team leaders too bossy. Would like to have self-contained classrooms, some interaction, team planning."
>
> -"There hasn't been any change around here except for the improvements made in the restrooms for the teachers and the students."

An attempt was made to validate the schools that had been classified into "more" and "less" renewing on the criteria stated above. Three steps were taken to do this. First, schools were rank-ordered according to level--elementary, middle, and senior high schools--and according to the mean responses of teachers to the following attitudinal items:

- The staff is continually evaluating its programs and activities and attempting to change them for the better.

- People do a good job of examining a lot of alternative solutions to problems before deciding to try one.

- Teachers prefer the "tried and true"; they see no reason to seek new ways of teaching and learning.

- Teachers are continually learning and seeking new ideas.

- Teachers would be willing to take a chance on a new idea.

If any school in the more renewing group ranked below the mean of these items, the school was replaced with another that ranked above the mean and whose teachers described any changes as resolving problems and improving the situation in the interviews. The same process was used with less renewing schools except that the schools that did not rank below the mean were replaced with schools that did and whose teachers viewed the school problems as unalterable. In effect, both interview and questionnaire data had to converge for a school to be classified in one or the other group, although the interview data served as the primary criteria. In the more renewing group none of the high schools changed, one middle school was changed, and no elementary schools. In the less renewing group, two high schools were reclassified, no middle schools, and one elementary school.

Second, after the above regrouping, staff members (including staff researchers, data managers, and data collectors) of A Study of Schooling who had visited the schools during the data collection phase, examined the groupings. They determined that none of the schools was misplaced based on the "feel" they had for these schools.

Additionally, for the purpose of assessing inter-rater reliability, a person unfamiliar with A Study of Schooling also sorted the 18 schools into "more" and "less" renewing groups. The directions that this person followed for this task are given in Appendix C. This person's sorting of the 18 schools perfectly matched that of the author's. Nine "more" renewing and nine "less" renewing schools (three elementary, three middle, and three high schools in each group) emerged, therefore, from this process. Further demographic data on these schools are provided in the next chapter.

The selection of these schools addresses the first and second question of this study--What criteria describe more and less renewing schools and how can these criteria be operationalized with the data collected in A Study of Schooling? Which of the 38 schools of the sample in A Study of Schooling can be characterized as more and less renewing using the criteria developed under question #1?

Operationalization of the Constructs

This section addresses the third question of this study--Of all the contextual variables for which data were collected in A Study of Schooling, which are the ones most representative of cultural dispositions apt to differentiate more renewing from less renewing schools?

The variables studied in ASOS tapped into comprehensive components of school life. These components appeared to be common to all schools, and therefore, were called commonplaces--16 in all. These are teaching practices, content or subject matter, instructional materials, physical environment, activities, human resources, time, organization, communications, decision-making, leadership, goals, issues and problems, implicit (or hidden) curriculum, and controls or restraints.[1]

These variables can be grouped into four categories: variables dealing with *personal data*, those reflecting *class data*, those dealing with *school data*, and those about *schooling, in general*. Teachers, students, and parents provided the data for each domain. In addition, observers noted classroom interactions between students and teachers. These observers made extensive observations of the more than 1000 classrooms in the sample. Figure 1 depicts these categories of variables and the nature of the existing data set.

FIGURE 1

		Data Domains (Examples Only)			
		Personal	**Class**	**School**	**Schooling**
Data Sources	**Teachers**	• Demography • Reasons for entering education profession • Teaching experience • Educational beliefs	• Relative amounts of time spent on instruction, behavior control, and routines • Use of behavioral objectives • Frequency of certain learning activities	• Relative importance of school functions (social, intellectual, personal, and vocational) • School "climate" or work environment • Major problems • Equality of education (ability, race, sex)	• Desegregation • Fiscal support of public education • Teachers unions • Minimum competency • Role of global education in the schools
	Students	• Demography • Self-concept • Educational aspirations	•Relative amounts of time spent on instruction, behavior control, and routines • Difficulty of class content • Frequency of certain learning activites • Class "climate"	• Relative importance of school functions • Evaluative rating • Major problems • Equality of education • Adequacy of counseling services • Subject-area preferences	• Desegregation • Role of job experience in schools • Value of schools
	Parents	• Demography • Years lived in community • Political beliefs		• Relative importance of school functions • Evaluative rating • Major problems • Equality of education • Involvement in activities and decision making • Objectionable learning materials	• Desegregation • Fiscal support of public education • Teachers unions • Teachers' salaries • Minimum competency • Role of global education in schools
	Classroom* **(Teacher/Student Interaction)**		• Relative amounts of time spent on instruction, behavior control, and routines • Use of corrective feedback • Use of open versus closed questions • Instructional time spent with total class versus individual versus groups		

---

*Data were collected on this data source through observation. For the purposes of this conceptualization, observers are being treated not as a data source, but as part of the data collection *method*, just as questionnaire and/or interview methods were used in collecting data from teachers, students, and parents.

BEST COPY AVAILABLE

Parallels exist between the commonplaces identified in ASOS data, the concept of the culture of the school described in this study, and the variables identified as important in the literature reviewed. Figures 2a, 2b, and 2c illustrate these parallels. The data domains are on the horizontal axis, and the data sources are on the vertical axis. Schooling was omitted as a domain from the horizontal axis, and parents are excluded as a data source along the vertical axis because the focus of this conceptualization is on the school, the classrooms of the school, and the people of the school. All of these domains constitute the context.

The elements of the culture of the school previously described in the conceptualization in Chapter 1, head the cells of the chart. For example, in the cell under personal domain and teacher as data source, the cultural construct, People Who Educate, is the heading of this cell. Under the heading fall a list of the variables from ASOS that match this construct. And so, for each cell, headings are listed with the variables from ASOS that match the heading listed under it. In essence, this is a content validity process analogous to that ordinarily used for good criterion referenced cognitive tests. Thus, this two-dimensional chart summarizes the match between the cultural constructs identified in the conceptualization of this study and the variables operationalized in ASOS.

The concept of the culture of the school is used heuristically to conceptualize a way of viewing the school. As such, teachers, students, principal, and even parents can provide information that may shed light on this culture. Nevertheless, the present study

FIGURE 2a

Personal

PEOPLE WHO EDUCATE

Teachers

-Age-Marit.S-Sex
-Race/ethn-income
-polit. orient.-educ.
-reasons for ent. educ.
-Years of teaching experience
-Years of teaching experience at this school
-Current Teaching situation
-Fulfilled expectations
-Post credential work in education
-Main purpose of this work personal growth
-Have you participated in any professional training programs
-How much do educational organizations affect your professional growth
-Articles, books, reports, etc. in education read
-Help professional literature is to you re:professional development
-Ways teachers have professional contact with teachers from other schools
-Help these kinds of professional contacts are to your professional development

PEOPLE SCHOOLS EDUCATE

Students

-Age
-Sex
-Ethnicity
-Income

Classroom
Student/Teacher Interaction*

BEST COPY AVAILABLE

Figure 2b

Class

Teachers

TIME

- Time used in planning & preparation
- Time spent on:
  - routines
  - instruction
  - behavior
- % of time on indiv. instruc.(object, cont. maters.,act.,meth. grouping, sch.

COMMUNICATION

- % Time on indiv. inst.
- Use of behav. object.
- Freq.& useful. of mat.
- Freq.& useful. of tec. methods
- Freq.& useful. of cog. levels
- % of Ss for whom cont. & materials approp.
- Freq.& useful. of Grp. (alone, sm.group, whole class)

CRITERIA FOR SUCCESS

- Freq.& useful of ways to obtain info on S prog.

TEACHER'S ATTITUDES ABOUT WORK

- T act. like best/least
- Satisf. w/plan/tchng
- Control of dec. mak. of plan. & tching.
- Agree/disagree w/BOs

Students

THINGS BEING LEARNED

- Usefulness of content for what Ss need know now and later

TIME

- Time taken by the following three things:
  - Routines
  - Behavior
  - Learning

COMMUNICATION

- Percep. of indiv. instr.(Class climate scales)
- Use and like of materials
- Use and like of teaching methods
- Use and like of cognitive styles
- 3 Ways like or would like to work alone
  - Small group
  - Whole class

Classroom Teacher/Student Interaction*

NORMS

- Class climate scales
- Agree/disagree

THINGS BEING LEARNED

Interest for you for what learning
- Hard/easy " " " " "
- Usefulness " " " " " for now
- Usefulness " " " " " for later in life
- Freq. to choose own books,mats.,or equipment

TIME

- % of time with inde/sm.grp/med.grp/lge grp/whole class
- % of time by leaders mode (T.Aide,Coop. indep.)may also do by subject
- Length of periods

COMMUNICATION (For Each Group)

- Activities 1-11
- When T with Ss what interac.style(FMI)
- Freq.& use of mat. in general
- Avail.& use of mats.
- Adequacy of mats.

SPACE

- Open space
- Size of space
- Flexibility of space
- Furnit./Furnit. arr. rigid flexible
- Alteration Fancines rigid flexible
- Quality of space

BEST COPY AVAILABLE

Figure 2c

School

Teachers

NORMS

TS about the work environment?
- Teacher influence scales
- Problems at this school
- Teacher's belief(educ. beliefs)
- Mode of working on sch. problems
- Friendships
- Sociograms
- Time spent on solving problems
- Knowledge of teaching staff re:
  - ways students behave
  - other Ts competence
  - other Ts educ. beliefs
- Importance of staff meetings
- Fulfilled expectations
- Adequately prepared
- Principal power
- Importance of staff meetings
- Congruence scores re:functions
- Satisfactions w/buildings for work & relaxation
- Teacher control
- Climate scales
- Grading of the school
- Daily work activities liked best/least
- Freq. observation/instruct.in another's class
  - Desirous of this
- Teacher influence scales
- Adequacy of help
- Frequency of talk w/principal
- Desire for more talk w/principal

THINGS BEING LEARNED

- Importance this school thinks of these are (social, intell.,personal, vocational)
- One which this school should emphasize (social, intell.,personal, vocational)

What are the procedures for eval.& marking Outcomes?
- Satisfaction with the current eval. system
- Changes like to see in current eval. system
- Number of problems at this school
- Time spent solving these problems

SPACE

- Satisfaction with building for work and relaxation

Students

THINGS BEING LEARNED

- Importance this school thinks each of these areas are (soc.,pers.,intell.,voc)
- One which this school should emphasize (social, personal, intell., voc.)
- Like and importance of subjects
- Grading of the school

NORMS

- Most popular students are...
- Activities students participate in
- Knowledge of the principal (know him--is friendly/helpful)
- Problems at this school
- One best thing about this school
- Drug abuse

Classroom
Teacher/Student Interaction*

*Data were collected on this data source through observation. For the purposes of this conceptualization, observers are being treated not as a data source, but as part of the data collection method, just as questionaire and/or interview methods were used in collecting data from teachers, students and parents.

BEST COPY AVAILABLE

tests the viability of this conceptualization set forth above by focusing only on the teachers and principal. They seem most critical to understanding the renewal process even though the students, parents, and others familiar with the school can also provide important information. Consequently, variables listed in the conceptualization that focus on interactions among students and teachers; students' perceptions of the class and instruction; students' relationships to the school, other students, and teachers, and the classroom observational data are not used for the purpose of this study.

In addition, the contextual data on teachers and principals can be further delineated by focusing on those variables reflecting cultural dispositions that are likely to differentiate "more" renewing from "less" renewing schools. This can be accomplished by referring to the literature review of Chapter 2. Three types of contextual variables that seem most likely to differentiate these two groups of schools emerge--variables focusing on the principal's leadership, those directed at the amounts of decision-making and control of teachers, and variables focused on the way staff members work together. These types serve as filters for selecting variables from Figure 2. Appendix A contains a list of the selected variables defined by the survey items and categorized into the three domains of Personal, School and Class/Curriculum focused variables that emerged from this filtering process. In the cases of variables which are composite scores on scaled items (e.g., educational beliefs, teacher influence scales, organizational climate, and bases

BEST COPY AVAILABLE

of principal power), only exemplary items are indicated. (More details on the derivation of these scales can be found in Sirotnik.)[2]

Variable Reduction

Appendix A contains 94 variables. It may well be, however, that empirical redundancies exist in these variables that could be revealed through analysis of their intercorrelations.

These 94 variables were, therefore, cluster analyzed to determine if, in fact, variables were sufficiently correlated so as to warrant either eliminating those viewed as redundant or combining some into higher order constructs for use in the next phase of the study. In effect, the correlation matrix generated for the 94 variables over the 672 teachers from the 18 schools was rearranged into clusters such that variables tend to be more highly correlated within clusters than between clusters. (The Biomedical program BMDP2M was selected for this purpose, using absolute values of the correlations and the average linkage rule to amalgamate clusters.)[3]

The following narrative describes the process of combining or eliminating contextual variables.

PERSONAL VARIABLES Of the original nine variables of the personal domain, only one was eliminated. The one eliminated--Years of Teaching--correlated .77 with age; thus, age was retained in view of its more general meaning.

CLASS VARIABLES Ten variables remain out of the original fourteen of this category. The reductions occurred as a result of joining one or more variables together and forming a larger construct. Satisfaction with planning and teaching and Control of decision-making regarding planning and teaching correlated .50. This correlation prompted an examination of the concepts underlying these two variables. This examination revealed that the variables appear to measure the same processes of planning and teaching, even though their principal difference has to do with the satisfaction or control of these processes. Given their clustering and this conceptual similarity, they were merged into one larger variable entitled Satisfaction and Control of Planning and Teaching.

Two other variables--"arrange for someone to take your class" and "frequency of observing instruction in other classrooms"--also clustered together. The same thinking that occurred with the above set of variables guided the merger of these variables. "Frequency of observing" and "Arrange for someone to take my class" appeared to tap into the same concept. Both have to do with observation in another teacher's classroom; while the difference seems minor--"frequency of observation" versus "frequency of someone taking my class so that I might observe someone else"--it is not likely that a teacher can observe another teacher if someone does not take her class. Thus, they conceptually and empirically appeared to be measuring the similar concepts. It was decided to retain only one of them, since either one got at the idea of observing. "Arrange for someone to take my class," however, seemed to be a precursor to the actual observation and was selected as the one to represent the concept.

In addition, the educational belief scales clustered into two groups. The first group consisting of the scales Teacher Control and Basics became a variable called Traditional Beliefs; while the second group containing scales, Student Control and Student Participation was labeled Progressive Beliefs. Each pair constituted a larger variable. These titles seem appropriate since Teacher Control and Basics seemed to reflect a more traditional view of schooling and Student Control and Participation reflected a more progressive view of schooling. Moreover, a similar finding emerged with data from all of the schools in ASOS. (See Wright for a further rationale for this redefinition of the teacher beliefs items.)[4]

Finally, in reading through the list of variables in this process of examining the variables to determine if any should be eliminated or combined, the items of the teacher influence scale entitled "Curriculum, Instruction, and Behavior" came to the attention of the writer. It appeared conceptually to be related to the class domain rather than the school domain. Curriculum, instruction, and behavior occur mostly in the class and therefore, it seemed that this variable should fit under the class domain rather than the school domain. It was moved to the school domain.

SCHOOL VARIABLES The initial list of school focused variables consisted of 37 variables. After the examination of the cluster analysis, this number was reduced to 19. The following paragraphs describe that reduction process.

Teacher influence scales were reduced from seven to three. The cluster analysis results mirrored those found in the analysis for all teachers in ASOS. The three scales were entitled "Teacher Influence over Fiscal Management," "Teacher Influence over Selection and Evaluation of Staff," and "Teacher Influence over School Related Issues."[5]

"Adequacy of help in carrying out your job" clustered with the problem variable, "School too large/classes overcrowded." These two were combined into a larger variable named "Inadequate Assistance." This larger variable was created for two reasons. First, the idea of assistance pervades both variables. The idea is evident on face in "Adequacy of help in carrying out your job." In the other variable "School too large/classes overcrowded," the concept of assistance seemed to underlie the variable. When classes are overcrowded, for example, teachers, no doubt, perceive the need for more help because more help is a way to contend with overcrowding. Second, by using the word "Inadequate," the other concept of both variables could be retained. Adequacy is an idea of "Adequacy of help in carrying out your job." Inadequate conveys the negative side of the concept. This negative aspect of adequate is conveyed in "School too large/classes overcrowded." The assumption of inadequate can be inferred because when teachers perceive this problem, they are indicating their view that the situation is inadequate. Consequently, the two variables were combined and labeled "Inadequate Assistance."

A similar decision was made about the two variables "Satisfaction with school buildings, grounds, and facilities" and the problem area "Inadequate or inappropriate resources (e.g., personnel, buildings, equipment, and materials)." These two clustered and upon further thought appeared to reflect similar concepts. Satisfaction with the resources of buildings, grounds, and facilities implies adequacy; while the negative side of it would imply inadequacy. Since this is also the case with the problem area, the variables were combined into a larger variable and labeled "Inadequate Resources."

The School Work Environment scales consisted of ten scales. After the cluster analysis, this number reduced to three larger variables. These results corresponded to the analysis in ASOS. The first combination consisted of the dimensions Quality of problem-solving/Decision-making Processes, Staff Task Orientation, and Staff Work Facilitation. These three seemed to reflect an idea of getting things done, taking care of business. Thus, it was entitled Take Care of Business. The second grouping comprised all of the dimensions having to do with the principal and therefore, was called Principal Leadership. Finally, the scales that had something to do with the feeling staff have toward one another--Staff to Staff Affection, Staff Openness, and Staff Job Satisfaction--clustered and were labeled Staff Cohesiveness.

Finally, five other variables were eliminated. The "Amount of control over own job" was highly related to the construct "Satisfaction and Control with planning and teaching." Since planning and teaching constitute such a large part of the "job" of a teacher, it was determined that "Satisfaction and Control with Planning and Teaching" measured nearly the same concept as "Amount of control over own job." Therefore, "Amount of control over own job" was eliminated.

The remaining four contextual variables were the problem areas Poor Curriculum, the Administration at this School, How the School is Organized, and Staff Relations. These variables demonstrated their separability from each other and from the other clusters. When they didn't cluster with the other dimensions, however, their substance was reconsidered. It was decided that there was little substantive difference between these four and the other dimensions because it appeared that each of the concepts stated in these problem areas were implied in the other dimensions. Therefore, these four were eliminated.

What remained after this process were 37 variables, shown in Table 1.

Table 1
TOTAL SET OF VARIABLES USED IN THIS STUDY

Personal/Demographic Focus

Variable Description and Code Name

A1	Age
A2	Sex
A3	Ethnicity
A13	Political Orientation
A14	Educational Attainment
A33	Would you teach again?
A42	Years at this school
PROF	Index of Professionalism based on:
	A15 done post credential work in education
	A05 participated in any professional training programs in past three years
	A157 number of professional organizations
	A160 number of education articles, books, reports read in last year

Class/Curriculum Focus

Variable Description and Code Name

B1	Teaching Situation
B15	Can you arrange for someone to take your place
D11	Grading of School
TFUNC	Teacher congruency between their statement of goals and the average responses re: goals
CURINBEH	Teacher influence over curriculum, instruction, and behavior of students
TRADBELS	Traditional beliefs
PROGBELS	Progressive beliefs
LIKETCHG	Like teaching
SAT/CON	Satisfaction and Control of planning and teaching

School Focus

Variable Description and Code Name

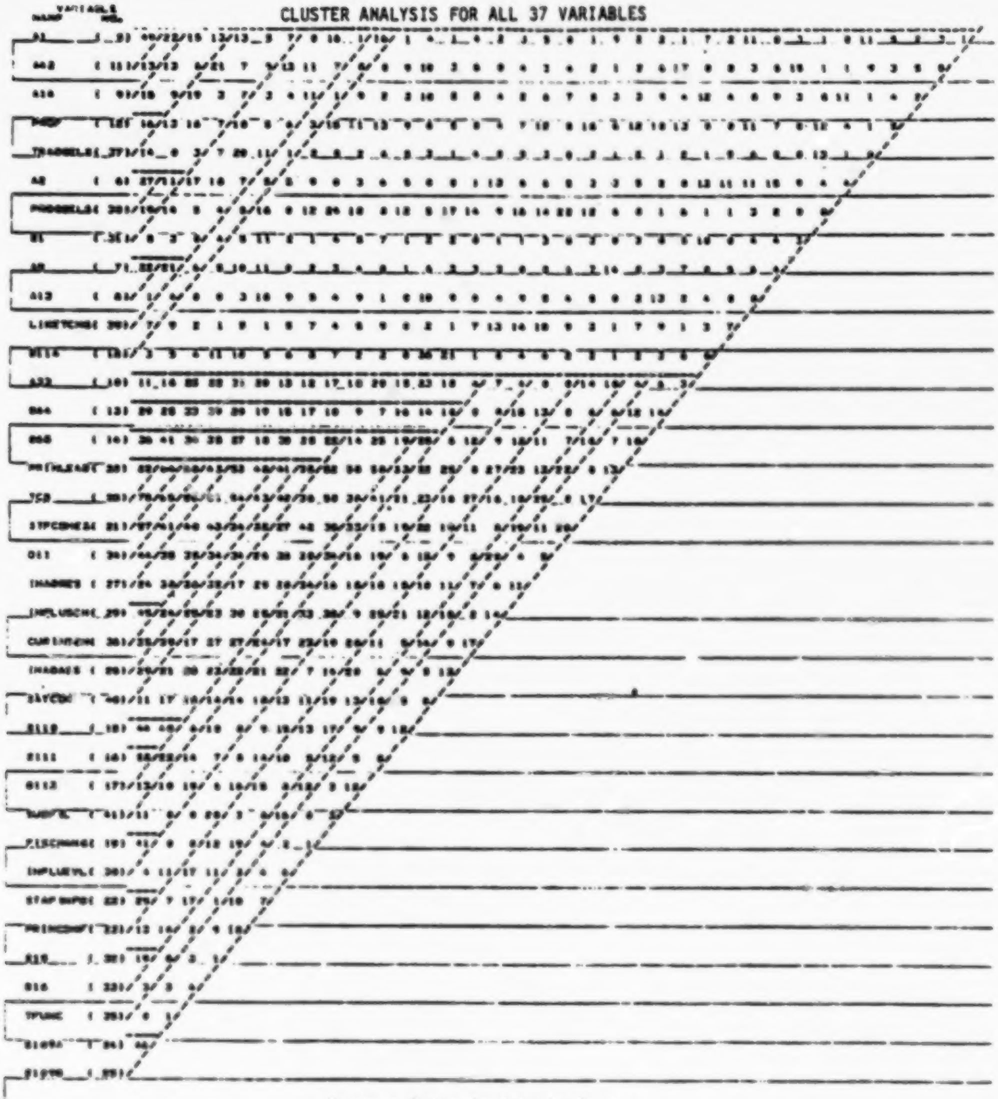
B64F	Percent of staff who spend time solving major school problems
B65	Chances for successful problem solving (3 point scale)
	Principal Power
B1110	Personal Reasons
B111	Competence Reasons
B113	Punishment Reasons
B114	Legitimate Right

TCB	Take care of business (Problem-solving/decision-making, staff task and staff work facilitation)
PRINLEAD	Principal Leadership
STFCOHES	Staff Cohesiveness
STAFINFO	Percent of staff about whom teachers know the way they behave with students--job competence--educational beliefs
·PRINCONF	Frequency of communication with principal re: curriculum, behavior, instruction
·PRINCOMI	Frequency of talk with principals re: instruction, curriculum, pupil behavior, staff relations, and my job performance
·B109A	Mode of problem solving
·B109B	Mode of problem solving
INADASS	Inadequate assistance (Inadequate help/too large classes)
INADRES	Inadequate resources (Buildings/facilities meet needs and Inadequate resources--buildings, etc.)
INFLUSCH	Teacher influence over school focused issues (3 point scale)
INFLUEVL	Teacher influence over selection and evaluation of staff
FISCMANG	Teacher influence over fiscal management (3 point scale)

These variables were then re-clustered as a check to demonstrate that sufficient separability existed among them. Figure 3 shows the clustering patterns that emerged for each domain of variables. All of the 36 variables remain relatively separate in this analysis and they were then used in the discriminant analysis discussed in Chapter 4.

FIGURE 3

CLUSTER ANALYSIS FOR ALL 37 VARIABLES



Means and standard deviations

for these variables are presented in Appendix B

REFERENCES

1. M. Frances Klein, Kenneth A. Tye, and Joyce Wright. "A Study of Schooling: Curriculum," Phi Delta Kappan, 61, 4, December, 1979 pp. 244-247.

2. Kenneth A. Sirotnik, "Development and Psychometric Analyses of Major Scales Utilized in A Study of Schooling." A Study of Schooling. Technical Report No. 4, 1979.

3. W. J. Dixon and M. B. Brown, Biomedical Computer Programs P. Series (2nd printing and revision). Berkeley: University of California Press, 1979.

4. David Wright, "Teachers' Educational Beliefs" Technical Report No. 14, A Study of Schooling, 1981.

5. Sirotnik, op. cit.

CHAPTER IV

Analysis and Results

ANALYSIS

Eighteen schools, then, comprised the sample for analysis. These schools were dichotomized into two groups--a "More" renewing and a "Less" renewing group. As described previously, this dichotomization resulted from operationalizing renewal through interview statements of the teachers and principals of these schools and the Study of Schooling staff's (including the writer's) impression of these schools. In addition, the culture of the school was used as a heuristic concept in selecting contextual variables that might differentiate "More" renewing schools from "Less" renewing schools. Thirty-six variables were finally selected using both conceptual and empirical screens.

In this final step--to describe and differentiate teachers in the more and less renewing schools--a discriminant analysis was chosen as the primary analytical tool. Discriminant analysis is one way to measure the extent to which sets of variables differentiate among groups of cases. In this study, there are only two groups--the teachers in more and the teachers in less renewing schools. Thus, discriminant analysis is the logical and statistical equivalent of regression analysis, wherein the amount and the significance of the shared variance can be determined between the cultural variable subsets and the renewal dichotomy.

Several analytic products emerge from this analysis. First, standardized weighting coefficients and discriminant loading coefficients are calculated. The discriminant loading coefficients were selected as the best indicators of the contributions of each of the contextual variables to the discrimination between the renewal groups. The loading coefficient is simply the product-moment correlations of the variables in each set with the discriminant function. Following Darlington et al,[1] it can be argued that the discriminant loading coefficient provides a better understanding of the nature of the construct and its relative contribution to the group differences than the ordinary standardized weighting coefficient. This is especially important for this discussion, given its conceptual and exploratory nature. Second, the canonical correlation (equivalent to the ordinary multiple correlation for this case of two groups) for each set of variables is computed and used. This statistic indicates how well the function discriminates among the groups. In this way, we can discover which of the sets of variables seem most related to the grouping variables and the proportion of the variance in the renewal dichotomy accounted for by each set of variables.

Third, the significance level is provided. Since the sample of this study was not random, the significance level only suggests what the generalizability of the relationship to a larger population might be, and is not strictly interpretable.

Four subsets of contextual variables were analyzed separately. The first consisted of all of the variables (36). Then the three sets of variables (Personal, School, and Class Focused) were analyzed separately to provide conceptual clarity.

A second phase of analysis--classification--was also conducted. Since there were no other cases than the 676 teachers, by reclassifying the teachers of the sample into groups of "more" renewing and "less" renewing based on their discriminant scores and not on their a priori categorization, it was possible to check the strength of the discriminant functions. The percentage of classes correctly classified provides another view of the discrimination power of the variables in each subset. This, of course, will be compatible with the size of the canonical correlation.

Finally, summary statistics are provided for each set of discriminating variables including mean and mean differences between the two groups of schools, standard deviations, and the Pearson correlation coefficients for each variable with the renewal dichotomy. These descriptive statistics provide useful descriptive information but, as to be expected, the conclusions derived as a consequence of univariate analysis may change somewhat when all the variables are considered with a multivariate approach. Consequently, most of the attention of the reporting and interpretation of the results of this study focus on the discriminant analysis.

The units of analysis used in this study are the individual teachers in the "more" and "less" renewing schools. As suggested in the literature reviewed in Chapter II, a more or less renewing school culture can be inferred from the individuals and their perceptions about the schools. The teacher provides an inside view of the school and its character as a workplace. The focus, therefore, is on the individual's characteristics and perceptions of the school.

THE RESULTS

The 676 teachers in 18 schools included in this study revealed differences for variables in each of the three different sets of contextual variables. Some discussion of the results is included in this chapter. The implications for school renewal, using the culture of the schools as a heuristic, are considered in Chapter VI. Before presenting the findings of the discriminant analysis, a description of the more and less renewing schools is given.

School characteristics

In Table 2 data are provided which describe some of the general characteristics of the larger context surrounding the sample schools. Conventional wisdom might have it that schools in poorer neighborhoods, in urban settings, and with parent bodies poorly educated might be less renewing than schools in wealthier, better educated suburban communities. After all, the schools in poorer areas have more problems and the problems are more intractable. Thus, it is important to make sure that the sample of schools is not biased toward well-to-do or poor areas.

The data in Table 2 reveal a relatively balanced distribution. The average parent income in more renewing schools is $15,099, only slightly more than in the less renewing schools, with $14,944. There is a slightly higher average education level for parents in less renewing schools, 3.67, than in more renewing schools, 3.56.

TABLE 2

Characteristics of the Eighteen Schools

MORE RENEWING				LESS RENEWING			
HIGH SCHOOLS				HIGH SCHOOLS			
	Parent Income*	EI**	Geog.		Parent Income*	EI**	Geog.
Palisades	$20,800	5	Urban	Bradford	$19,600	3	Suburb.
Euclid	$14,100	3	Rural	Newport	$14,200	5	Urban
Crestview	$14,500	3	Suburb.	Manchester	$16,200	3	Urban
$\overline{X}$	$16,466			$\overline{X}$	$16,666	3.67	
MIDDLE SCHOOLS				MIDDLE SCHOOLS			
Atwater	$17,000	3	Suburb.	Fairfield	$12,300	3	Rural
Woodlake	$17,700	5	Suburb.	Newport	$13,700	5	Urban
Rosemont	$ 4,000	1	Urban	Bradford	$17,900	3	Suburb.
$\overline{X}$	$12,900	3		$\overline{X}$	$14,633	3.67	
ELEMENTARY SCHOOLS				ELEMENTARY SCHOOLS			
Bradford	$16,500	3	Suburb.	Fairfield	$ 9,500	3	Rural
Rosemont	$ 6,300	2	Urban	Manchester	$18,400	5	Urban
Palisades	$15,000	7	Urban	Crestview	$12,700	3	Suburb.
$\overline{X}$	$15,933	4		X	$13,533	3.67	
$\overline{X}$	$15,099	3.56		$\overline{X}$	$14,944	3.67	

* Estimated median income

** Education Index; median based on:

1 = 8th grade and less
2 = Less than High School graduation
3 = Completed High School
4 = Completed Technical, Trade, Business School
5 = Some college; not finished
6 = Graduated from Junior College
7 = Graduate from College or more

There is also a relatively even distribution regarding geographical area--urban, suburban, rural. The only difference in numbers is that the "less" renewing group has one more rural and one less suburban school than the "more" renewing schools.

An interesting demographic characteristic arises with the more renewing schools. Two of these schools--Rosemont Middle and Rosemont Elementary--have the poorest and least educated parents and the school is in an urban inner city area. The parent bodies are predominantly Hispanic, bilingual or monolingual Spanish speaking, and first or second generation immigrants.

Consequently, the fact that differences in the two groups arise among the 36 variables listed in the conceptualization can now be thought of in their own right. That is, the context, as discussed above, appears not to be confounded with the renewal dichotomy and will not interfere in the interpretation of the variables constituting the conceptualization.

Descriptive statistics for univariate analyses

In examining the descriptive statistics for each of the variable sets depicted in Tables 3, 4, and 5, the statistics that seem most helpful in pointing out any univariate differences between the two groups are the Pearson correlation coefficients and the differences between means.

The correlation coefficient (right hand column) reflects the interrelation between the variable listed on the left side of the table and the Renewal Dichotomy. A teacher from a school in the "Less" renewing group received a score of 1, while a teacher from a

TABLE 3

Descriptive Data
(Personal/Demographic Focus)

	Renewal Dichotomy				
	More	Less	Mean Difference	Correlation With Renewal Dichotomy	Significance Probability
A1	37.00	39.00	2.00	-.10	.011
A2	1.61	1.56	.05	-.03	.399
A9	1.23	1.19	.04	-.01	.829
A13	2.95	3.04	.09	-.09	.026
A14	3.38	3.51	.13	-.11	.007
A33	1.30	1.35	.05	-.07	.065
A42	5.67	6.56	.89	-.09	.022
PROF.	0.10	-0.16	.04	.12	.003

TABLE 4

Descriptive Data
(School Focus)

	Renewal Dichotomy				
	More	Less	Mean Difference	Correlation With Renewal Dichotomy	Significance Probability
B64	2.64	2.26	.38	.15	.001
B65	1.79	1.44	.35	.25	.001
B110	3.11	3.26	.15	-.05	.188
B111	2.28	2.86	.60	-.21	.001
B113	3.72	3.37	.35	.12	.003
B114	2.17	2.03	.14	.05	.176
FISCMANG	1.44	1.33	.11	.15	.001
PRINLEAD	4.54	3.90	.64	.30	.001
STFCOHES	4.43	3.78	.65	.30	.001
STAFINFO	2.43	2.26	.17	.09	.018
PRINCONF	1.83	1.66	.17	.19	.001
B109A	1.13	1.13	.00	.01	.761
B109B	1.59	1.61	.02	-.04	.295
INADASS	1.45	1.62	.17	-.23	.001
INADRES	1.39	1.67	.28	-.38	.001
TCB	4.26	3.51	.75	.39	.001
INFLUSCH	1.80	1.66	.16	.18	.001
INFLUEVL	1.24	1.25	.01	.00	.931

TABLE 5

Descriptive Data
(Class/Curriculum Focus)

	Means More	 Less	Difference	Correlation With Renewal Dichotomy	Significance Probability
B1	1.24	1.26	.02	-.01	.811
B15	1.49	1.54	.05	-.04	.280
B16	1.55	1.53	.02	.02	.623
D11	3.94	3.25	.69	.36	.001
TFUNC	1.53	1.35	.18	.18	.001
CURINBEH	2.53	2.35	.18	.25	.001
TRADBELS	4.39	4.40	.01	-.01	.769
PROGBELS	4.23	4.17	.06	.04	.303
LIKETCHG	1.82	1.70	.12	.12	.002
SAT/CON	4.17	4.03	.14	.14	.001

school in the "More" renewing group received a score of 2. None of the coefficients is high for the Personal Demographic variables. This indicates that this class of variables as defined does an adequate job of differentiating between the two groups of schools. Professionalism is the highest, .12, indicating that the higher the professionalism score, the more renewing the school.

Table 4 depicts the descriptive data for the School Focused variables. These variables have higher correlations with the renewal dichotomy than the Personal Focused variables. Nevertheless, none of these correlations is very high. Even though the correlations remain low, the higher coefficients point to variables that differentiate the two groups of schools in the discriminant analysis.

The highest coefficient, .39 for Take Care of Business, indicates that teachers who viewed the staff as being able to solve the problems of the school, made decisions about school operations, and got things done, tended to work in the more renewing schools. The next highest coefficient, -.38, for Inadequate Resources suggests that teachers in the less renewing schools tended to view inadequate resources as a major problem in their schools. Interestingly, Inadequate Assistance has a lower correlation, -.23. Both Principal Leadership and Staff Cohesiveness correlated -.30 with renewal. In other words, teachers more strongly agreed with positive statements about their principal's leadership and the way the staff worked with and related to one another in the more renewing schools. These correlations will receive further comment in Chapter V.

Class and Curriculum variables show no high correlations. (See Table 5.) However, relatively speaking, two variables stand out. The highest--the Grading of the School--had a correlation coefficient of .36 indicating that the higher teachers graded their schools, the more renewing the school. In the conceptualization phase of this study, this variable was placed in the School Focused set of variables, but was later moved to the Class Focused set, based on the belief that Grading of the School constituted a curriculum focus and not an overall evaluation of the school as an organization. Of course, if teachers viewed their response as an overall evaluation of the organizational elements of the school, perhaps the variable would belong in the School Focused set. This possibility is discussed further in the discriminant analysis section.

The only other correlation worthy of note is Teacher Influence Over Curriculum, Instruction, and Behavior. It correlates .25 with renewal, suggesting that teachers perceived more influence over curriculum, instruction, and behavior in the more renewing schools.

In sum, the correlations with and mean differences between the renewal dichotomy highlight possible variables that might differentiate "more" renewing from "less" renewing schools. The correlation coefficients are not large. Nevertheless, the cumulative effects of many small relationships can differentiate groups as well as larger differences on just a few variables. This assertion will be discussed in the last chapter. Moreover, differences between the two groups no doubt rest with multiple variables. The results of the multivariate discriminant analyses therefore should illuminate the results so far presented.

DISCRIMINANT ANALYSIS RESULTS

The multiple-discriminant analyses were performed using SPSS sub-program Discriminant[4] separately for each subset of variables and for all variable sets combined. A criterion of ±.40 was set for loading coefficients identifying variables worthy of additional discussion.

Demographic/Personal Focused Variable Differences

The discriminant analysis for the Demographic/Personal subset analysis generated the statistics in Table 6. These statistics point to three loading coefficients that differentiate the groups above ±.40. These variables are Professionalism, Age, and Educational Attainment. Professionalism remains the highest, but recall that it had a Pearson correlation coefficient of only .12, indicating a small relationship. In addition, the mean difference for Professionalism between the two groups of schools was only .04. Thus, although Professionalism seems to differentiate the most for this category of variables between more and less renewing schools in the expected direction, the relationship is extremely weak.

Age and Educational Attainment differentiated the most after Professionalism. The Pearson correlation coefficients and the Mean differences for each variable between the two groups of schools remained small. Nevertheless, a negative loading coefficient of -.45 for Age and -.44 for Educational Attainment suggests an inter-

TABLE 6

Discriminant Loading Coefficients

(Personal/Demographic focus)

Professionalism	.50
A1	-.45
A14	-.44
A42	-.33
A13	-.31
A33	-.23
A2	.20
A9	.20

Canonical R = .25

Canonical R^2 = .06

Significance* $< .001$

*Based upon Wilks' Lambda and Chi-square statistics

esting relationship, albeit a small one--the older the teacher and the more educated the teachers, the less renewing the school.

The canonical R for this variable subset was .25. Even though the significance for this group was beyond the .001 level, the relationship accounts for a little more than 6% of the variance in renewal. Variables of the Demographic/Personal type, not included in the conceptualization of this study because they were not included in A Study of Schooling might differentiate better than some of the ones included. These possibilities are discussed in Chapter V.

The low correlation between this group of variables and renewal is further borne out when the proportion of correct classifications of cases is examined. Table 7 reveals that 60% of all the cases could be correctly classified using the variables in this group. More important, less renewing cases were more accurately classified than were more renewing cases. Consequently, 73% of the less renewing cases were classified correctly as compared to only 44% of the more renewing cases. However, the overall weak relationship remains when one considers the overall classification correct rate of 60% in relation to the base rate. That is, given the marginal percentages of teachers in more and less renewing schools--42% and 58% respectively--classifying all teachers in less renewing schools would result in a 58% correct classification with no predictive equation whatsoever. Thus, only a 2.4% improvement over this base rate is realized when utilizing the personal/demographic subset of variables in discriminate analysis.

TABLE 7

Classification by Discriminant Analysis of More Renewing and Less Renewing Schools for Demographic/Personal Focused Variables

ACTUAL GROUP	No. of Cases	Predicted Group Membership More Renewing	 Less Renewing
More Renewing	265	116 43.8%	149 56.2%
Less Renewing	333	90 27.0%	243 73.0%

Percent of "Grouped" Cases Correctly Classfied: 60.0%

Base rate = 57.6%

% improvement over base rate = 2.4%

98

School Focused Variable Differences

Table 8 indicates that six variables have loading coefficients higher than ±.40. These variables, in descending order are Take Care of Business, Inadequate Resources, Principal Leadership, Staff Cohesiveness, Chances for Successful Solving of School Problems, and Inadequate Assistance.

Take Care of Business had the highest loading coefficient, .77, and was moderately correlated with the Renewing Dichotomy at .39. The mean difference between the two groups of schools was .56. Inadequate Resources had the next highest loading coefficient of -.68, with a Pearson correlation coefficient of -.38 and a mean difference between the two groups of .24.

Next is Principal Leadership and Staff Cohesiveness. Principal Leadership had about the same loading coefficient, .57, as Staff Cohesiveness, .56, as well as the same correlation coefficient of .30. The Mean Difference for Principal Leadership was .59 and for Staff Cohesiveness it was .48.

The other variables had loading coefficients above ±.40, although somewhat lower than the other four. Chances for Successful Solving of School Problems had a loading coefficient of .50, a correlation coefficient of .25 and a mean difference of .30. The last variable above ±.40--Inadequate Assistance--had a loading coefficient of -.43, a correlation coefficient of -.23, and a mean difference of .15.

It is interesting to note several points in summary. First, the principal remains an important factor in the perceptions that

TABLE 8

Discriminant Loading Coefficients
(School Focus)

TCB	.77
INADRES	-.68
PRINLEAD	.57
STFCOHES	.56
B65	.50
INADASS	-.43
B111	-.39
INFLUSCH	.32
PRINCONF	.32
B64	.29
FISCMANG	.24
B113	.21
STAFINFO	.15
B114	.10
B110	-.10
B109B	-.04
INFLUEVL	-.02
B109A	.02

Canonical R = .48

Canonical R^2 = .23

Significance* $<$.001

Based upon Wilks' Lambda
and Chi-Square statistics.

teachers have regarding the tendencies for renewal. Teacher views of the principal's leadership tend to differentiate the two groups of schools. The more teachers see the principal in a positive way, the more renewing the school. Teachers' views of how they worked with and felt toward their colleagues also seem to differentiate the two groups as they were only slightly lower than principal leadership, indicating that collegial relationships are as important as the principal's relationship with teachers.

Second, help in terms of resources and assistance also differentiates the two groups of schools. The more teachers perceive inadequate resources and assistance as a problem, the less renewing the school. Third, the perception that tasks were being done as a staff, that the staff could get on with solving problems, and that things were running well, differentiated the more from the less renewing schools.

Finally, several variables of the School Focused group did not differentiate as well as the ones mentioned above. Two should be noted. First, variables describing communication occurred among the adults and how the group solved problems did not differentiate the two groups of schools. Second, the perception of influence over school matters seemed not to matter much in differentiating the two groups, even though there is much literature suggesting the need for communication and teacher decision-making, if schools are to renew.

The School Focused variables seem to be the most important ones. This group of variables had the highest canonical R, .48, of the three groups, accounting for 23% of the variance in renewal ($P < .001$). Its importance is further strengthened by the classification results in Table 9, indicating that 70.4% of cases were correctly classified. Thus, the regression equation predicts group membership 12.8% better than the base rate information alone. Fifty-nine percent of the "More" renewing cases and 78.1% of the "Less" renewing cases were classified correctly. These statistics for School Focused variables show the same tendencies as those for Demographic/ Personal variables in that "Less" renewing cases were more correctly classified than "More" renewing cases.

Class/Curriculum Focused Variables

Table 10 presents the loading coefficients for this subset of variables. Only two variables have loading coefficients above ±.40. The Grading of the School variables had the highest loading coefficients for this category, .87. This is also the highest loading coefficient of any of the subsets. It should be noted that the Pearson correlation coefficient was .36, suggesting that as the Grade of the School increased, the more renewing the school. The Mean Difference for this variable was .69--nearly a difference of 3/4 of a letter grade.

The only other variable which had a loading coefficient above ±.40 was Teacher Influence over Curriculum, Instruction, and Behavior. This variable had a .55 loading coefficient, although the Pearson correlation coefficient was .25. The correlation coefficient indicated that as the amount of teacher influence over curriculum, instruction, and behavior increased, the schools tended to be more

TABLE 9

Classification by Discriminant Analysis of More and Less Renewing Schools for School Focused Variables.

ACTUAL GROUP	No. of Cases	Predicted Group Membership	
		More Renewing	Less Renewing
More Renewing	247	148 59.9%	99 40.1%
Less Renewing	329	72 21.9%	157 78.1%

Percent of "Grouped" Cases Correctly Classfied: 70.3%

Base rate = 57.6%

% of improvement over base rate = 12.8%

TABLE 10

Discriminant Loading Coefficients
(Class/Curriculum Focus)

D11	.87
CURINBEH	.55
TFUNC	.39
LIKETCHG	.31
SATCON	.27
B15	-.10
PROFBELS	.09
B1	-.05
B16	.03
TRADBELS	-.00

Canonical R = .41

Canonical R^2 = .17

Significance* - $<$.001

*Based upon Wilks' Lambda and Chi-square statistics

renewing. No other variables seemed to differentiate the two groups of schools for the Curriculum/Class Focused variables, given the ±.40 cut-off point. The overall canonical R for this category was .41, accounting for approximately 16% of the variance, and significant beyond the .001 level.

Table 11 shows the classification analysis. These variables classified only 1% less well than the School Focused variables. 60.2% "More" renewing cases and 76.2% of "Less" renewing cases classified correctly. The regression equation predicts group membership 10.9% better than the base rate and approximately 2% less well than the School Focused variables. This category of variables, therefore, discriminates the two groups of "More" and "Less" renewing teachers as well as the school related subset. But this is really a function only of the inclusion of the grading item and teacher influence items in the class focus category. This point will be discussed more fully below..

Differences Among All of the Variables

For conceptual reasons, variables were classified into three subsets and analyzed separately. Nevertheless, a Discriminant Analysis of all of the variables disregarding the subsets was conducted, so that an examination of the variables that might differentiate the two groups, regardless of variable category could be considered. This analysis might clarify which of the subsets of variables seem to be the most important in differentiating between the teachers at more and less renewing schools. Table 12 indicates that six variables have loading coefficients of ±.40. These include

TABLE 11

Classification by Discriminant Analysis of More and Less Renewing Schools for Curriculum/Class Focused Variables

ACTUAL GROUP	No. of Cases	Predicted Group Membership	
		More Renewing	Less Renewing
More Renewing	266	160 60.2%	106 39.8%
Less Renewing	370	88 23.8%	282 76.2%

Percent of "Group" Cases Correctly Classified: 69.50%

Base Rate = 58.6%

% Improvement = 10.9

TABLE 12

Discriminant Loading Coefficients

(All variables)

TCB	.66	A1	-.17
D11	.53	FISCMANG	.17
INADRES	-.52	STAFINFO	.12
STFCOHES	.52	A42	-.12
PRINLEAD	.50	B114	.09
B65	.42	B110	-.09
CURINBEH	.36	PROGBELS	.09
B111	-.34	A2	.08
INADASS	-.33	A13	-.08
INFLUSCH	.31	A9	.07
PRINCONF	.30	A33	-.06
B64	.24	B15	-.05
TFUNC	.24	B1	-.05
SAT/CON	.22	B109B	-.04
LIKETCHG	.21	TRADBELS	.03
PROF	.20	INFLUEVL	-.01
B113	.19	B16	-.01
A14	-.18	B109A	.01

Canonical R = .57

Canonical R^2 = .33

Significance* <.001

*Based upon Wilks' Lambda and Chi-square statistics

Take Care of Business, Grading of the School, Inadequate Resources, Staff Cohesiveness, Principal Leadership, and Chances of Successful Problem-Solving. Grading of the School was the only Class/Curriculum Focused variable. The other five are the same variables found to differentiate the School Focused subset. Grading of the School was categorized in the Curriculum/Class category but, as stated earlier, it probably belonged in the School Focused variables. This analysis reinforces the suggestion that such a category change might have made sense, and that the importance of the Curriculum/Class subset was mostly due to this single variable. Therefore, given the fact that five out of the six variables were from the School-Focused category and that the sixth variable would probably be better categorized here as well, it is concluded that these School-Focused variables are the most important in differentiating the teachers in the more and less renewing schools.

The Canonical R for this analysis was .57, ($p < .001$), accounting for 33% of the variance in the renewal dichotomy. In addition, the classification analysis depicted in Table 13 shows that 76.9% of the cases were correctly classified, using all of the variables, nearly 20% above that expected by the base rate alone. The more renewing cases classified correctly, 74.2%, the highest of any of the analysis for more renewing cases. And 79.0% of the less renewing cases classified correctly, the highest of both more and less renewing cases.

In summary, some variables from each of the categories appeared to differentiate "More" renewing from "Less" renewing schools. For

TABLE 13

Classification by Discriminant Analysis of More and Less Renewing Schools for all of the variables

ACTUAL GROUP	No. of Cases	Predicted Group Membership	
		More Renewing	Less Renewing
More Renewing	221	164 74.2%	57 25.8%
Less Renewing	276	58 21.0%	218 29.0%

Percent of "Grouped" Cases Correctly Classified: 78.86%

Base rate = 57.6%

% improvement over base rate = 19.7%

the Demographic/Personal focused variables, Professionalism, Age, and Educational Attainment had the highest loading coefficients. But these relationships only accounted for about 6% of the variance. More importantly, the classification results indicated that these Demographic/Personal focused variables better classified teachers for "Less" renewing than "More" renewing schools.

For School-Focused variables, six variables appeared to differentiate "More" and "Less" renewing schools. These six in order of highest to lowest were Take Care of Business, Inadequate Resources, Principal Leadership, Staff Cohesiveness, Chances for Successful Solution of School Problems, and Inadequate Assistance. This variable subset seemed to be the most powerful in differentiating more and less renewing schools on three grounds. The Multiple R for this group was the highest of the Multiple Rs for the three groups of variables. Second, the improvement over the base rate was highest for this subset of variables than for any of the other two classifications. Finally, when all of the variables were included in a discriminant analysis, five of the six variables with ±.40 loading coefficients were from this School-Focused category.

For the Class/Curriculum focused variables, only two variables stood out--Grading of the School and Teacher Influence over Curriculum, Instruction, and Behavior. This group had the second highest Multiple R and had the second highest improvement over the base rate. But this result was a consequence of the Grading of the School variable. In the total analysis, the grading of the school had the second highest discriminant loading coefficient. Five of the six variables of the School-Focused group also appeared to differentiate in this analysis of all of the variables. These results suggested further that the grading of the school item was really a global measure of how effective the school was (including the work environment) as perceived by teachers.

REFERENCES

1. R. B. Darlington, S. L. Weinberg, and H. T. Walberg, "Canonical Variate Analysis and Related Techniques," Review of Educational Research 1973, 43, 433-454.

2. Frederick Kerlinger and Elazar Pedhazur, Multiple Regression in Behavioral Research, New York: Holt, Rinehart and Winston, 1973, p. 336.

3. Jeannette Oakes, Tracking and Educational Equity: Curriculum Content, Instructional Practice, and Social Relationships in 156 Secondary English Classes. Unpublished Doctoral Dissertation, University of California, Los Angeles, 1980.

4. Kenneth Sirotnik, "Psychometric Implications of the Unit of Analysis 'Problem' Measuring Organizational Climate as a Case in Point," A Study of Schooling Technical Report No. 3. 1981.

5. W. Klecka, "Discriminant Analysis," In NIE, N.H., and others, Statistical Package for the Social Sciences. New York: McGraw-Hill Book Co., 1975.

CHAPTER V

Summary and Discussion of the Findings

OVERVIEW OF THE STUDY

The Purposes and Questions

Change and innovation have occupied the thoughts of educators throughout at least the past two decades. During the 1960s, optimism prevailed about innovation. The study of innovation focused on understanding "good" innovations. These involved schools presumed to be awaiting new ideas and possessing all that was needed to implement a good idea. These presumptions became part of a rational view of school change and the development of an accompanying model. Theoreticians and researchers developed innovative programs that they believed solved many of the educational problems in schools. Unfortunately, schools appeared to rebuff these ideas; the problems remained; and most innovations were not implemented. The initial optimism palled and turned to pessimism during the 1970s.

Analyses of this unsuccessful implementation of innovations into schools suggested alternative views of how to improve schools. One of those views, the responsive model, began with the concept that those in schools must become responsive to their problems and, with any available help, become self-renewing. The schools would address their needs, solve their problems, and meet their goals. The concept of a renewing school was developed theoretically and experimentally. Most innovators continued to focus more on the implementation of particular innovations than on encouraging school personnel to develop the school's responsiveness and renewing capability.

The concept of the school as a culture has been proposed as a metaphor and a heuristic to aid in understanding a renewing school. In this study, the culture of the school was used in that manner--as a way to identify important contextual variables of the school likely to be associated with more and less renewing schools and the perceptions of the staff members in these schools. This was done for the purpose of answering the question: What are some of the cultural characteristics that describe, and, perhaps, differentiate teachers in schools that are more renewing from those in schools that are less renewing?

Procedure

This study first conceptualized the elements of the school's culture and selected contextual variables that matched the elements listed in the conception of the school's culture used in A Study of Schooling. Three subsets of variables were formed using both a rational categorization in accord with the conceptualization and an empirical cluster analysis--the Personal/demographic focused, the School focused, and the Class/curriculum focused categories. This procedure ultimately answered one of the questions of the study: Of all of the variables collected in A Study of Schooling, which could be used as contextual variables in differentiating more renewing from less renewing schools?

The next task was to respond to the questions: (1) What criteria described more and less renewing schools; and (2) how can these criteria be operationalized using the data collected in A Study of Schooling? The following definition described a renewing school: a school that solves its own problems and has a continuous process of improvement based upon staff-designed alternatives, a process that meets the needs of those in the school. This definition was operationalized by grouping schools into a more and a less renewing group, based upon teachers' responses to an interview protocol. Two criteria guided the grouping of the more renewing set: (1) Teachers identified problems and changes effected in these problems; and (2) teachers expressed the view that these changes resulted in improvement. The two criteria for less renewing schools reflected the opposite point of view--teachers either failed to identify problems or identified problem areas but expressed pessimism that anything could or would improve.

Which of the 38 schools of the sample in A Study of Schooling can be characterized as more renewing and less renewing using the criteria stated above? Nine schools were selected in each category according to the operationalized criteria. The schools in each group tended to have evenly distributed characteristics: rural, urban, or suburban location; of income of parents, and of parental education. Consequently, this even distribution of demographic characteristics suggested that they appeared not to influence these schools in terms of renewal as much as, perhaps, the dispositions reflected in the context conceptualized in this study.

Finally, discriminant analysis was used to assess the extent to which the sets of contextual variables thought to be the most important, differentiated among the two groups of teachers in more and less renewing schools. A summary of the findings of the analysis follows.

SUMMARY AND DISCUSSION OF FINDINGS

Demographic/Personal Focused Variable Differences

Demographic/Personal type variables have been examined in the literature regarding the adoption and implementation of innovations, organizational renewal, teacher work, and school culture. This literature has not produced significant results suggesting the power of this type of variable. Nevertheless, it was included in the conceptualization of this study because of the frequency with which it occurred in the related literature.

This subset, however, tended to be the least important of the three sets and the possible reasons for this are discussed below. This finding substantiates the basic concept in the responsive model of change that the school is the critical unit for change rather than the characteristics of the individual teacher. When most practitioners think about changing a school, they immediately presume the problem for renewal is the individual teacher. Their solution is often one of replacing older and less open individuals with younger and more open teachers. Or, they might provide incentives for teachers to acquire more degrees, attend inservice workshops, and/or gain salary increments based on course work at universities. These activities, however, may not relate to the ongoing activities, the problems, or the needs of the teachers at a particular school. These activities may inadvertently divorce teachers from the setting where renewal occurs.

The inappropriateness of focusing on the individual qua individual is further strengthened by another finding related to the variables of this subset. Professionalism had the highest loading coefficient and the highest correlation coefficient (with the renewal dichotomy) of this group, even though the correlation was low (.12). This variable consisted of the concepts of completed postcredential work, participation in professional training programs, membership in educational organizations, and reading of education books, articles, etc. What are some reasons for this variable standing out, even though weakly? First, the personal characteristics as operationalized in this study are not relevant for the reasons stated previously but personal perceptions of the systemic processes of the school are relevant. Systemic characteristics are the focus when the school becomes the unit of change. These characteristics, like decision-making and communication patterns, are perceived by the individuals in the school. Of this subset, professionalism comes the closest to these systemic processes since school processes usually exert pressure on teachers to engage in or disengage from inservice activities, for example. The strongest systemic subset is the school focused set which is discussed in the next section.

The fact that the characteristics of teachers selected in A Study of Schooling did not show up as significantly related to school renewal does not rule out, however, the possibility of some such characteristics being important. Even though the more likely possibility is that renewal rests more with changing the school, individual teachers are still important. If one could change the entire staff of a school by bringing in outstanding individuals well educated, predisposed to growth, and open to new ideas, and also address changing school level variables, the chances of a more renewing school would probably increase. Renewal might result because these kinds of individuals in interaction with a renewing setting would more easily identify important problems and generate better alternatives. In any event, the present conditions in schools do not allow for replacing school staffs, except in urban settings and, even there, turnover has decreased. New blood is not easily brought in. Thus, attention to improvement must rest mainly with other possibilities.

School Focused Variable Differences

Not surprisingly, then, the school focused subset of variables appears to be the most important of the three subsets. This result is corroborated by the primary findings of the recent work synthesizing the school effectiveness literature. These findings also point to the importance of the organizational context, particularly to strong principal leadership, academic emphasis and high expectations.[1] The correspondence between these variables and the Grading of the School and Organizational Climate dimensions in the present study should be clear.

The school focused subset had the greatest number of higher loading coefficients above ±.40, the highest canonical R and, therefore, accounted for more of the variance between the two groups and the most improvement over the base rate using the regression equation for classifying cases. In addition, in the analysis including all variables, the school focused ones (five out of the six that had coefficients above ±.40 in the subset analysis) remained at the top of the loading coefficient rankings. Only one other joined them--the Grading of the School--and, in retrospect, both empirical evidence and conceptual rethinking suggest that it should have been placed in the school focused subset rather than the class/curriculum subset. Several points will be made about these seven variables and then some comments about the variables of this set that did not have coefficients above ±.40.

The variable Take Care of Business had the highest loading coefficient. This finding relates to the characteristics of a renewing school. It was suggested earlier that renewing schools solve their problems, meet the needs of the individuals in the school and achieve the goals of the school. This variable is a generalized measure of these characteristics. Teachers tended to perceive more problem-solving, appropriate conditions for them doing their job, and a staff able to move to get the jobs done that needed to be done (Appendix A has the items listed that comprise this larger construct).

This finding relates to two other variables--Inadequate Resources and Inadequate Assistance--that were in the group of differentiating variables. Teachers in more renewing schools seem to perceive fewer problems with inadequate resources and assistance.

Viable strategies for achieving school goals, solving problems, and meeting needs obviously require the perception that resources and assistance are available. The data here suggest this to be the case. This idea is also reflected in the responsive model of change. One ingredient of that model was an outside resource that provided care and support. If resources and assistance are like care and support, then, these findings support this characteristic perception of those in renewing and responsive schools.

Accompanying the above school focused variables is one that focused on the principal's leadership. As the literature suggests, the principal looms large in a school[2]; and this variable differentiated between the two groups of teachers in this study, reinforcing the importance of the principal's leadership to renewal. This finding also emphasizes the importance of the school as the unit for renewal. The principal has the authority, formally and often informally, to lend credence to steps leading toward or away from renewal. The school is embedded in a district, but renewal seems to depend more on what happens at the school than at the district office. The principal seems to be an important ingredient for the school's renewal effort.

Another related variable in this subset is Staff Cohesiveness. Here too, the literature indicates that it is important to "good" schooling and to the adoption and implementation of change.[3] In this study, higher levels of staff cohesiveness tended to be associated with the more renewing schools. Staff cohesiveness consisted of support, care, trust, information sharing, toleration of countervailing ideas, and high morale. These characteristics grew out of a concerted effort to develop them and of opportunities for the teachers to work together.

Some researchers have conceptualized the social system of the classroom in the context of the larger community, ignoring the school culture of which the class culture is a part.[4] Attempts have been made to renew classroom teachers only by attending to the teacher in the class setting, forgetting about those teacher relationships at the school level. The results from this study suggest that the view is too narrow at least in regards to differentiating the teachers at the more and less renewing schools.

Finally, the remaining important variable of this subset reflected the teachers' perceptions of the probability of solving problems at their school. This variable also differentiated between the two groups. This indicated that along with the other variables previously discussed, problem-solving is an important ingredient in the renewal process. Once again, the issue was not "no problems versus many problems." Rather, problem-solving is a mechanism by which teachers increased the probability of task accomplishment, meeting goals, and generally attending to organizational needs.

Several variables of this school focused subset represented two constructs that the literature also suggested might characterize renewal, but surprisingly they did not differentiate between the more and less renewing schools. The two constructs are communication and decision-making/participation. Two variables reflected the concept of communication. These were Frequency of Communication with the Principal and Staff Information. These two did not differentiate between the two groups and their correlation coefficients were very close to zero. The same was true with the variables that reflected decision-making and participation. These three variables included Influence over School related matters, Influence over Fiscal Management, and Influence over Evaluation of Staff.

Several reasons can be offered as to why the variables of these two constructs did not differentiate. First, the variables and the items did not reflect the construct adequately. For example, Take Care of Business and Principal Leadership have reflected in them the concepts of communication and decision-making/participation. (See Appendix A). To take care of business seems to require both things. It may be, then, that teachers only directly perceive the more general concept rather than the specific parts of this larger construct--communication and decision-making.

Second, these two constructs are important to renewal but renewal is something that must be strived for as a goal. A renewing school is an ideal type. As such, it does not exist naturally. The nine renewing schools which were selected had relatively more of the renewing characteristics than the nine designated as less renewing. But, none of them approached the ideal type. Perhaps communication and decision-making/participation must be developed more than the other constructs that differentiated in this school focused subset in order for teachers to identify them as significant variables.

In sum, the school focused variables are the most important set of variables differentiating more and less renewing schools. These appear to differentiate the most between the two groups. This fact further reinforces the view of the school as the focus for renewal rather than the personal characteristics of individuals only. Change efforts focused on individual characteristics will be less adequate than these focused on organizational characteristics, in particular, those reflected in these variables: Take Care of Business, Inadequate Resources and Assistance, Principal Leadership, Staff Cohesiveness, and Probability of Problem-Solving.

Class/Curriculum Focused Variable Differences

Only two variables of this class/curriculum subset seem to differentiate between the two groups of schools. As noted previously, the one with the highest loading coefficient is the one that should have been part of the School focused subset--Grading of the School. That decision would no doubt cause the Canonical R of this subset to be substantially reduced, indicating the small importance of these variables and the greater importance of the school focused variables.

In addition, it is puzzling that this class/curriculum category did not differentiate between the two groups of teachers. Other data, however, in ASOS may suggest an explanation for this puzzle. Some of the data of ASOS suggest that there are homogeneous classroom practices across schools even though there is variability in the work environment of the teachers across schools.[5] It may be that the classroom is a private place and a norm has developed in schools to the effect that the classroom is the responsibility of the individual teacher. He/she does not share problems or successes with colleagues, for the purposes of getting help in resolving problems or developing alternatives to current practices. Consequently, these kinds of discussions do not surface at meetings of the total staff. Moreover, this condition is viewed as desirable and, thus, it should come as no surprise that class variables do not differentiate between more and less renewing schools because teachers do not see the class/curriculum as an area for renewal as much as they see areas of the school outside of the class as places for renewal. In the past, reformers have looked to better teachers and/or to improved classroom practices to improve schooling but by circumventing school level variables. The data and explanation suggest that more must be done to link the class and the school.

Finally, some of the data of this study suggest that the substance of schooling may also need more attention than it now receives. For each of three separate analyses, teachers were reclassified into the groups of more and less renewing, based on their discriminant scores and not on their a priori categorization. This provided another view of the discriminatory power of the variables in each subset. For each subset, less renewing cases were classified more correctly than more renewing cases. One interpretation of this finding is that the negative end of the renewal construct is better (more consistently) perceived by those experiencing the context. Similar findings have arisen about more and less satisfying schools.[6,7] Another way to put this is that problematic schools are more easily identified. This situation may arise because teachers and those associated with schools spend little time talking about the ideals of schooling--the good school; instead, they discuss the present conditions of schools, which are not ideal, and in some cases are much less satisfactory. These discussions about the good school must occur among the teacher and others at the school level even though the discussion may partly focus on class and curriculum characteristics of a good school.

IMPLICATIONS FOR FUTURE RESEARCH

These findings also suggest some ideas for future research. First, these findings are derived from just one data based study that used the notion of the culture of the school as a heuristic to select contextual variables. Data derived from these contextual variables were used ex post facto to determine which of these differentiated "more" from "less" renewing schools. Clearly, this limits the span of generalizability. What is needed is more research both ethnographic and survey based, to further clarify the concepts developed here. For example, the phenomenology of the teacher in more and less renewing schools needs more attention so that the meaning ascribed to the variables by researchers can become closer to the meaning teachers have for these variables. In addition, it would also be important to determine how the "more" renewing schools became that way. For example, what processes were put in place that might have contributed to the school becoming a "more" renewing place? Or, at the other extreme, why is it that another school can not be moved beyond its problems and be generally perceived by its staff as "less" renewing?

A second implication for future research has to do with increasing the number of different data sources from which data are gathered. This dissertation used only teacher data even though other data sources could shed light on the culture of the school. Parents, students, and others in the school have perceptions of different parts of the context and thus, of the culture. This information would be important to analyze to determine if the school focused variables remained the most important.

The importance of these implications is supported by the attention that anthropologists and sociologists have given to the notion of culture. It makes good sense to proceed with school research based on this idea. This alternative direction for school research is one way of getting at the underlying dispositions that are purported here to have so much to do with understanding school renewal.

Third, these data were collected at one point in time (over a four week period). Additional questions could be answered if data were gathered at different points in time. For example, do these renewing characteristics remain stable over time, during different parts of the year, or over a number of years, do different variables play important roles, dependent upon the stages of renewal the school is going through?

Finally, in the school effectiveness studies previously mentioned, schools that were well outside of the expected range of achievement were identified as "most" effective and data were collected to determine which parts of these schools accounted for this characteristic "high" effectiveness. Unlike these studies, the present one identified "more" from "less" renewing schools based on the relative separateness of the contextual variables from one another. Consequently, for future studies, outside experts could be used to identify schools that were viewed as "most" and "least" renewing based on the definition used in this present study and data similar to the pieces collected in this study could be collected and analyzed to determine if the same contextual variables differentiate these "most" and "least" renewing schools as did the ones that differentiated the "more" from the "less" renewing schools of this present study.

Once these additional parts are added to future research studies, a firmer foundation for understanding renewing schools will be laid. These understandings will then provide clearer information as to how "more" renewing schools can be cultivated and maintained. In the process, we should also gain improved insight into those phenomena comprising important aspects of the school's culture. The next chapter addresses the implications of the variables for school renewal.

REFERENCES

1. Joan Shoemaker and Hugh W. Fraser, "What Principals Can Do: Some Implications from Studies of Effective Schooling," *Phi Delta Kappan* 63 *3* Nov. 1981, pp. 178-182.

2. *Ibid*.

3. Michael Rutter, et al, *Fifteen Thousand Hours*. Cambridge, Mass.: Harvard University Press, 1979.

4. Talcott Parsons, "The School as a Social System: Some of Its Functions in American Society," *Harvard Educational Review*, vol. 29, no. 4, Fall 1959, pp. 297-318.

5. John I. Goodlad, A Summary of A Study of Schooling, in process.

6. *Ibid*.

7. Monica Morris, "The Public School as Workplace: The Principal As a Key Element in Teacher Satisfaction," Technical Report No. 32, A Study of Schooling, 1981.

Chapter VI

Implications for School Renewal

In this last chapter, two possible ways of conceptualizing the implications of the findings of this study for schooling are contrasted--the so-called RD&D model and a model taking as central the proposition that the culture must become responsive to the needs of those in the school if school change is to be effected. For want of a better name, I shall call this the responsive cultural model. The findings of this study are placed in the context of these two views and the implications of these findings for school renewal are suggested.

A distinction between these two views is important. At the outset of this report the RD&D model was eschewed and a cultural model was advocated as a more accurate way of viewing and effecting school change. As a result, culture was used as a heuristic to aid in the selection of an array of contextual variables that would be most important in understanding the concept of school renewal. Culture was not used in its anthropological sense of determining the guides by which people behave in a society. Rather, the concepts of culture were used to help the author identify contextual variables that are often easily overlooked using alternative views. These contextual variables, therefore, reflect features of the culture that presumably are related to renewal. However, these contextual variables are not the equivalent of school culture. Culture is being used as a way to think holistically about schools so that a more useful view of the way renewal occurs can be developed. Consequently, it seems important to return to the idea of culture in discussing the implications of the findings of this study for school renewal.

The research, development and diffusion model of school change may begin with a school based development of an innovation that meets the needs of some of those in the school. Soon, however, policy makers study it, determine its effectiveness, and make the innovation a matter of policy. At this point, this innovation loses its power because it gets disseminated to others as a generalized concept that will help resolve a difficult policy problem or issue. As such, it comes to these other schools from the outside. Usually, the policy maker has a list of behaviors or characteristics that describe the conditions of the innovation so that these conditons become the focus of implementation. This person then sets about to have the teachers exhibit these characteristics.[1] Workshops are designed to describe and demonstrate these desired behaviors so that the teachers understand and perform them. The assumption is that the innovation has occurred when the appropriate identified behaviors or structures are evident.

Each innovation brought to the school in this fashion has to be created outside of the school from available research and development. Different marketing strategies have to be created so that each innovation can be implemented at the site level. The site usually receives one innovation at a time and schools become "passive" targets for particular innovations. This means that single aspects of the school come under close scrutiny for a time depending upon the nature of the innovation being shot at the school. When the innovation subsides, the attention to the part diminishes. In addition, the individual teachers become the focus of the marketing strategies. Ways of getting a teacher to change are the focus. These assumptions have guided the process of implementing innovations in schools for the last two decades. Some scholars have found this model lacking because it does not contend with the realities of how schools resist or effect change.[2]

A responsive cultural model of school change seems to represent better the ways schools change and contrasts with the RD&D model in several important ways. First, specific structures or behaviors are not the focus as they are in the RD&D model; instead, the focus is on the dispositions of teachers and others in the school regarding processes and concepts of change. Variables research has identified as critical to any change become necessary but not sufficient for implementing innovations. Changing dispositions of the teachers regarding these critical variables is the sufficient condition for bringing about the intended change. These dispositions are the schemes of thought shared by the people in the school. For example, often one hears a colleague say, "I hear you telling me that." In the RD&D view, this kind of phrase represents one of the communication skills that should be in place in an organization and teachers often attend workshops on developing these types of communication skills. But having appropriately-sounding phrases to say and appropriately internalizing what the phrases really mean (for both sentiment and behavior) are two different "ball games." These meanings reflect the shared schemes of thought. Without them the phrases become meaningless.

An analogy may illustrate the time and effort involved in cultivating these characteristics. The analogy uses Krathwohl *et al's* framework[3] for understanding the necessary conditions for an individual to acquire values, feelings, attitudes, or interests pertaining to a particular concept. In their conception, values, for example, only became characteristic after individuals received, responded to, valued, and organized these values into a hierarchy. *This process, though different for each person and often unconscious, takes time and requires experiences that provoke the individual to deal with the value*. In a school, one can imagine a similar process but a more difficult one for changing dispositions. Since the school is a social system, the complexity of the task increases, involving all the persons as well as the group norms in the school. New dispositions will come about only as people in the school repeatedly confront existing dispositions in an environment promoting introspection regarding the purposes, problems, and activities of the entire school.

"The whole school" perspective is central to the responsive cultural model. In attending to the holistic nature of the school, the dispositions of all of the teachers are involved. A similar point was made in Chapter V regarding the importance of the school focused set of variables. That same point needs to be reinforced in this section. One way to get this total school perspective is to engage regularly in total staff processes. A contextual appraisal system is an important way of providing information to the staff. Grounded information is an important key for helping groups share perceptions and increase their awareness of relationships between their perceptions and the actual behavior that occurs.[4]

Furthermore, changes in one disposition affect other dispositions. They interact. If a new disposition is desired, not only will the new one have to be cultivated, but other ones will also have to change. This may suggest multiple changes proceeding simultaneously throughout the school. All of the dispositions about the variables of the school focused set that differentiated the two groups, then, become critical in the change process.

Finally, the capacity of the school to change continually is another characteristic of the responsive cultural model. Changes occur not as a result of better marketing strategies from outside but as the culture of the school becomes responsive to new ideas from the outside and to the needs and the problems inside of the school.

Effecting school renewal is an example of a change effort which could be pursued from either the RD&D or the cultural perspective. The variables identified in this study as critical to renewal may themselves be seen as the focus of change (RD&D) or the emphasis may be placed on the cultivation of dispositions about school renewal and the beneficial effects of concomitant variables (cultural). The variable Take Care of Business (consisting of ideas of group problem-solving and getting the job done) can illustrate the points of difference between the views stipulated above. This variable is one of the important variables found related to renewal in this present study. The following scenario uses this variable to illustrate an RD&D view. The superintendent has read a review of the literature and discovered that Take Care of Business is an important characteristic of renewing schools. He discusses this fact with one of his principals and, together, they decide that the teachers should get better at Take Care of Business. The principal conducts several staff meetings on the meaning of this variable and the ways that it can be implemented. After these staff sessions, he then moves on to other variables during subsequent meetings. He may assume that each variable is in place after the staff meeting. But teachers continue to solve their problems separately from each other. For example, the playground behavior of children disappoints many teachers, especially when they have the chore of supervising them during morning or afternoon recess. When the same inappropriate behaviors occur time after time and the teacher cannot change that condition, frustrations arise. To a teacher, the problem often appears to be his or her problem or the problem of the teacher whose child/children has/have acted out. The answer then is seen as one of going to the other teacher with a report of that child's inappropriate behavior, of solving the problem alone--this presumably takes care of the business. Even though these teachers received in-service education in the particular aspects of this variable, beliefs about taking care of business did not change and, therefore, particular ways of doing things did not change either.

Using a responsive cultural view, this variable would be addressed somewhat differently. The focus would be on changing the dispositions that teachers have about solving problems individually and cultivating the alternative disposition of solving problems and getting things done together. Some staff meetings may have time devoted to understanding the concept of Take Care of Business. But, more importantly, the cultivation of this disposition would require the teachers to work together consistently and over a long period of time on these processes and the beliefs they have about these processes. For example, teachers would be encouraged to bring problems like the playground one to the attention of the staff at staff meetings so that they can resolve these problems together. Therefore, inappropriate playground behavior would become an agenda item for a staff meeting and the teacher or teachers having the problems would describe it. Other teachers would generate alternatives for the solution, arrive at and commit to the solution, and implement it together on the playground. These efforts would necessarily include discussions about the beliefs and attitudes underlying the problem-solving process.

Furthermore, other related dispositions would have to be addressed together with this Take Care of Business disposition, given a responsive cultural view of renewal. For example, this present study found several other important and conceptually related variables. These would be cultivated together with Take Care of Business. Assistance and Support is one of these variables. For the cultivation of Take Care of Business to happen, assistance and support are necessary. In this regard, assistance is more than a pat on the back. It may include, for example, more time to plan and to meet together in small groups, and/or more help in identifying alternatives for the problems identified by the group. Consequently, when assistance and support are appropriate, they promote problem-solving and getting things done together by the teachers.

Principal Leadership and Staff Cohesiveness are additional important variables related to school renewal. Principal support, encouragement, and direction are necessary ingredients in the success of renewal efforts. But so also is staff cohesiveness, defined here as consisting of elements such as tolerance for one another, good feelings toward colleagues and the school, flexibility, and open information flow. All of these ingredients--Take Care of Business, Adequate Resources, Principal Leadership, Staff Cohesiveness--although separable conceptually, act in concert to promote renewal.

But, most importantly, putting these variables in place will most likely not bring about more school renewal unless existing dispositions regarding these variables are confronted and cultivated. For example, what are the extant beliefs/attitudes regarding working with others, accepting assistance, and sharing problems, frustrations, and concerns? These questions would have to be meaningfully addressed before sufficient conditions would exist for implementing the variable "Assistance and Support." Again, the school effectiveness literature provides a good illustration. Five variables including strong instructional leadership, cooperative student behavior, academic emphasis, high expectations, and active learning time stand out in this literature.[4] Like this study, these variables were isolated by retrospective study and appear to be separable entities. But more likely, in reality they are highly interactive. Moreover, it would be mistake for school officials to believe that putting each of the five into place would be sufficient to raise their school's achievement level beyond expectation. Rather, significant change must also occur in the belief systems of teachers and students (and even parents) regarding what exists and what ought to exist. Higher student achievement might well follow a staff decision to attack this area of school business.

Finally, a responsive cultural model of school renewal has a place for findings like the ones from the school effectiveness studies. In the past, some have advocated for RD&D[6]; while others have argued for renewing schools.[7] The need is to have both joined together in an amalgam rather than having one or the other. In the amalgam, renewing schools would look to research and development for the basis of ideas that could help address their problems. Those in the school would adapt these ideas to suit the problems they face. This means that schools should become renewing using a responsive cultural view in order for this to happen and that research and development should be in close interaction with these renewing schools so that the research addresses more closely the problems these schools have.

In summary, a responsive cultural model of school change differs from an RD&D model because the responsive cultural view treats important variables, such as the ones found in the study, as necessary but insufficient for renewal. Sufficiency arises when dispositions about renewal are attended to at the school level for a long time period. Research and Development has a place in this responsive cultural view. Treating the school holistically is part of this view and suggests that multiple dispositions have to be treated together by all of the staff at the school level. Therefore, renewal must be cultivated, not just put in place. These schools will draw ideas (research and development) from the outside and deal with the dispositions about the important variables of research such as the findings of this study (Take Care of Business, Principal Leadership, Staff Cohesiveness, Adequate Assistance, and Problem-Solving). These dispositions will have to be treated holistically at the school level and will require all of the staff together working on them. A long time-line, during which a great deal of support is provided, will have to be anticipated. The result will be schools that continually adapt to the changing problems and conditions and draw new ideas from the outside. The need for better marketing strategies diminishes as the culture of the school becomes more responsive, and thus, renewing.

REFERENCES

1. Jerry L. Patterson and Theodore J. Czajkowski, "Implementation: Neglected Phase is Curriculum Change." Educational Leadership, December 1979, 37, 3, pp. 204-207.

2. Ernest House, The Politics of Education Innovation, Berkeley, Calif.: McCutchan Publishing Company, 1974.

3. David R. Krathwohl, Benjamin S. Bloom, and Bertram B. Masia, Taxonomy of Educational Objectives: The Classification of Educational Goals Handbook II: Affective Domain. New York: David McKay Company, Inc., 1964.

4. Kenneth A. Sirotnik and Jeannette Oakes, "A Contextual Appraisal System for Schools: Medicine or Madness?" Educational Leadership, December 1981.

5. Joan Shoemaker and Hugh W. Fraser, "What Principals Can Do: Some Implications from Studies of Effective Schooling." Phi Delta Kappan, November 1981, 63, 3, pp. 178-182.

6. David Clark and Egon Guba, "An Examination of Potential Change Roles," paper presented at the Symposium on Innovation in Planning School Curricula, Airlee House, Va., October 1965.

7. Philip Runkle and Richard Schmuck, Transforming the School's Capacity for Problem Solving, Eugene, Ore.: Center for Educational Policy and Management, 1978.

APPENDIX A

DATA DESCRIPTION FOR VARIABLES IN SUBSET A: PERSONAL/DEMOGRAPHY FOCUSED VARIABLES

DATA DESCRIPTION FOR VARIABLES IN SUBSET B: SCHOOL FOCUSED VARIABLES

DATA DESCRIPTION FOR VARIABLES IN SUBSET C: CLASS/CURRICULUM FOCUSED VARIABLES

APPENDIX A

Data Description for Variables in Subset A: Personal/Demographic Focused Variables

A1 **Age:** ....

⓪	⓪
①	①
②	②
③	③
④	④
⑤	⑤
⑥	⑥
⑦	⑦
⑧	⑧
⑨	⑨

A2 **Sex:**

① Male
② Female

A6 Ethnicity

Which one of the following categories best describes your racial/ethnic background?

① White/Caucasian/Anglo
② Black/Negro/Afro-American
③ Oriental/Asian American
④ Mexican American/Mexican/Chicano
⑤ Puerto Rican/Cuban
⑥ American Indian
⑦ Other

A10 Political Orentation

Which one of the following adjectives best describes your political orientation?

① Strongly conservative
② Conservative
③ Moderate
④ Liberal
⑤ Strongly liberal

A35 Years of Teaching

How many years of teaching experience have you had? (If you have taught for less than one year, write in the number 01)

(If the number is less than 10, please use a leading zero for the first digit)

⓪	⓪
①	①
②	②
③	③
④	④
⑤	⑤
⑥	⑥
⑦	⑦
⑧	⑧
⑨	⑨

BEST COPY AVAILABLE

APPENDIX A (Cont.)
Data Description for Variables in Subset A: Personal/Demographic Focused Variables

A42 Years of Teaching at this School

How many years have you worked in this school? (If you have worked for less than one year, write in the number 01)

⓪	⓪
①	①
②	②
③	③
④	④
⑤	⑤
⑥	⑥
⑦	⑦
⑧	⑧
⑨	⑨

Professionalism - a standardized composite of variables relating to:

Have you done any post credential work in education?

② No
① Yes

Have you participated in any professional training programs (other than college work) during the past three years?

① Yes
② No

How many educational organizations do you belong to?

① 0
② 1
③ 2
④ 3
⑤ 4
⑥ 5 or more

How many articles, books, reports, etc., in education have you you read in the last year?

○ 0
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9 or more

What is the highest academic credential that you hold? (Mark only one)

① High school diploma
② Associate's degree/Vocational certificate
③ Bachelor's degree
④ Master's degree
⑤ Graduate/Professional degree (Ph.D., Ed.D., J.D. (Ll.B.), M.D., etc.)

BEST COPY AVAILABLE

APPENDIX A (Cont.)

Data Description for Variables in SubsetB: School Focused Variables

Teacher Influence scales each scale comprised of items such as those used under each scale as examples:

CURINBEH (Curriculum, Instruction, and Pupil Behavior)

③ A lot of influence .. ② Some influence .. ① No influence

Changes in curriculum. . . . .
Instructional methods that are used in classrooms. . . . .

CM issues (Extra-curricular and Community related Issues and Activities)

Special all-school affairs, such as open house, assemblies, etc. . . . . .
Committing the staff to participate in special projects or innovations.

STAFMEET (Procedures and Content of Staff Meetings)

Time of staff meetings. . . . .
Content of staff meetings. . .

COMPARS (Communication with Parents)

Arrangements for parent conferences. .

Ways of reporting pupil progress to parents. . . . .

DRESCODE (Pupil Dress Codes)

Standards of dress for pupils. . . .
Standards of dress for staff. . . . .

CLSASIGN (Pupil and Staff Class Assignments)

Assigning pupils to classes . . . .
Assigning teachers to classes. . . .

BEST COPY AVAILABLE

APPENDIX A (Cont.)

Data Description for Variables in Subset B:
School Focused Variables

FISCMANG (Fiscal Management)

Preparing the school budget . . . . .
Managing the funds available for
instructional purposes . . . .

TASSISTS (Selection and Evaluation of Teaching Assistants)

Selecting volunteer teaching assistants .

Evaluating the performance of
teaching assistants . . . .

PROSTAFF (Selection and Evaluation of Professional Staff)

Selecting full-time teachers for the
school staff . . . .

Evaluating the performance of
full-time teachers . . . .

B14 Adequate help in carrying out your job.

How much help do you feel you have in carrying out your job?

① Not enough
② Adequate
③ Too much

Major Problems at this school.

Not a Problem
Minor Problem
Major Problem

Poor curriculum. . . . . . ① ② ③

School too large/Classes overcrowded.

Inadequate or inappropriate distribution
of resources (e.g., personnel, buildings,
equipment, and materials) . . . .

The administration at this school.

How the school is organized (class
schedules, not enough time for
lunch, passing periods, etc.) . .

Staff relations . . . .

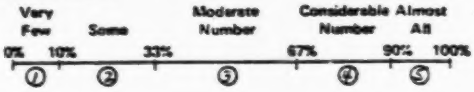
BEST COPY AVAILABLE

APPENDIX A (Cont.)

Data Description for Variables in Subset B:
School Focused Variables

B64 .Members of staff who spend time on solving these problems which you marked as major

How many members of this staff do you think are spending a lot of time and effort on those problems which you marked as major?



B65 .Probability of solving these problems

. What do you think are the chances for success in solving those problems which you marked as major?

③ Very good chance
② About 50-50
① Very little chance

B109 .Mode of working on problems

School staffs may work on problems in a total group effort, or they may tackle problems in subgroups. Think about the way your staff usually works on problems. Which one of the following statements best describes the way your school staff works?

① This staff works on most problems as a total group.
② Most problems are dealt with in subgroups of staff members.
③ Problems are dealt with nearly equally as often both as a total group and in subgroups.

BEST COPY AVAILABLE

APPENDIX A (Cont.)

Data Description for Variables in Subset B:
School Focused Variables

.Frequency of talk with principal

Indicate: (A) how often you talk with your principal for each of the following purposes.

	A			
Purpose	Once/day	Once/week	Once/month or less	Never
Pupil discipline . . .	④	③	②	①
Curriculum or instruction	④	③	②	①
Parent(s).	④	③	②	①
Staff relations	④	③	②	①
My own job performance . . .	④	③	②	①

.Percent of teaching staff about which teachers know the following:

For approximately what percentage of the teaching staff do you feel you know each of the following things:

0% 10% 33% 67% 90% 100%

	Very Few	Some	Moderate Number	Considerable Number	Almost All
a) The way they behave with students	①	②	③	④	⑤
b) Their job competence	①	②	③	④	⑤
c) Their educational beliefs	①	②	③	④	⑤

.Basis of Principal Power items

Listed below are five reasons generally given by people when they are asked why they do the things their superiors suggest or want them to do. Please read all five carefully. Then number them according to their importance to you as reasons for doing the things your principal suggests or wants you to do. Give rank "1" to the most important factor, "2" to the next, etc. (Mark only one circle for each reason, making sure that you do not give the same rank to more than one reason)

I do the things my principal suggests or wants me to do because:

RANK

B110 a. I admire the principal for personal qualities, and I want to act in a way that merits the principal's respect and admiration . . . . ①②③④⑤

BEST COPY AVAILABLE

APPENDIX A (Cont.)

Data Description for Variables in Subset B: School Focused Variables

Basis of Principal Power (continued)

B111 b. I respect the principal's competence and good judgment about things with which he/she is more experienced than I .... ①②③④⑤

B112 c. The principal can give special help and benefits to those who cooperate .... ①②③④⑤

B113 d. The principal can apply pressure or penalize those who do not cooperate .... ①②③④⑤

B114 e. The principal has a legitimate right, in that position, to expect that the suggestions he/she gives will be carried out .... ①②③④⑤

B23 .Amount of control of own job

Is the amount of control that you have over your job:

① Less than you like to have
② About the amount you like to have
③ More than you like to have

.School Work Environment Scales - each scale comprised of items such as as these listed under each scale as examples.

Quality of Problem-Solving/Decision-Making Processes

Strongly Agree / Moderately Agree / Mildly Agree / Mildly Disagree / Moderately Disagree / Strongly Disagree

When decisions are made, it is usually clear what needs to be done to carry them out . . . ⑥⑤④ . . ③②①

Principal Receptiveness/Staff Influence

People are involved in making decisions which affect them

BEST COPY AVAILABLE

APPENDIX A (Cont.)

Data Description for Variables in Subset B: School Focused Variables

School Work Environment Scale (continued)

⑦ Strongly Agree
⑥ Moderately Agree
⑤ Mildly Agree
③ Mildly Disagree
② Moderately Disagree
① Strongly Disagree

Principal-Staff Affection

Conflicts between the principal and one or more staff members are not easily resolved

Principal Leadership

The principal inspires staff members to work hard .

Principal Openness

The principal would be willing to take a chance on a new idea

Staff Work Facilitation

Staff members can do their work in the way they think is best .

Staff Task Orientation

The staff can easily mobilize to cope with unusual problems or work demands . . . .

Staff to Staff Affection

A friendly atmosphere prevails among the staff

Staff Openness

Information is shared between teachers from different departments, teams, or grade levels

Staff Job Satisfaction

The morale of staff members is rather low. . . . .

Satisfaction with school buildings grounds, and facilities for work

While you are on the job, do you find that the school buildings, grounds, and facilities meet your needs:

		Yes	No
B120	a. For work	①	②
B121	b. For relaxation	①	②

BEST COPY AVAILABLE

APPENDIX A (Cont.)

Data Description for Variables in Subset C: Class/Curriculum Focused

.Satisfaction with planning and teaching - A composite of variables relating to:

How satisfied are you with each of the following areas of your planning and teaching?	**Very Satisfied**	**Mildly Satisfied**	**Mildly Dissatisfied**	**Very Dissatisfied**
Setting goals and objectives	④	③	②	①
Use of classroom space	④	③	②	①
Scheduling time use	④	③	②	①
Selecting instructional materials	④	③	②	①
Evaluating students	④	③	②	①
Selecting content, topics, and skills to be taught	④	③	②	①
Grouping students for instruction	④	③	②	①
Selecting teaching techniques	④	③	②	①
Selecting learning activities	④	③	②	①

Control of decision-making re: planning and teaching- a composite of variables relating to:

How much control do you feel you have over decisions about each of the following areas of your planning and teaching?	**Complete**	**A lot**	**Some**	**Little**	**None**
Setting goals and objectives	⑤	④	③	②	①
Use of classroom space	○	○	○	○	①
Scheduling time use	○	○	○	○	①
Scheduling instructional materials	○	○	○	○	①
Evaluating students	○	○	○	○	①
Selecting content, topics, and skills to be taught	○	○	○	○	①
Grouping students for instruction	○	○	○	○	①
Selecting teaching techniques	○	○	○	○	①
Selecting learning activities	○	○	○	○	①

BEST COPY AVAILABLE

APPENDIX A (Cont.)

Data Description for Variables in Subset C: Class/Curriculum Focused

.Educational Beliefs Scales - each scale comprised of items such as those listed under each scale as examples.

-Teacher disclipline and control

	Strongly Agree	Moderately Agree	Mildly Agree		Mildly Disagree	Moderately Disagree	Strongly Disagree
Good teacher-student relations are enhanced when it is clear that the teacher, not the students, is in charge of classroom activities.	⑥	⑤	④	. .	③	②	①

-Student participation

Student initiation and participation in planning classroom activities are essential to the maintenance of an effective

-Basic subjects and skills

The learning of basic facts is less important in schooling than acquiring the ability to synthesize facts and ideas into a

-Student concern

The best learning atmosphere is created when the teacher takes an active interest in the problems and affairs of students . . . .

D11 .Grading of the School

Students are often given use grades A, B, C, D, and FAIL to describe the quality of their work. If schools could be graded in the same way, what grade would you give this school?

⑤ A
④ B
③ C
② D
① FAIL

BEST COPY AVAILABLE

APPENDIX A (Cont.)

Data Description for Variables in Subset C:
Class/Curriculum Focused

.Teacher Congruency Between their response to the Most important goal of the school and the Average Teacher response on the stated goals (TFUNC).

As far as you can tell, how important does THIS SCHOOL think each of the following areas is for the education of students at this school?

	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant
a. SOCIAL DEVELOPMENT (Instruction which helps students learn to get along with other students and adults, prepares students for social and civic responsibility, develops students' awareness and appreciation of our own and other cultures)	④	③	②	①
b. INTELLECTUAL DEVELOPMENT (Instruction in basic skills in mathematics, reading, and written and verbal communication; and in critical thinking and problem-solving abilities)	④	③	②	①
c. PERSONAL DEVELOPMENT (Instruction which builds self-confidence, creativity, ability to think independently, and self-discipline)	④	③	②	①
d. VOCATIONAL DEVELOPMENT (Instruction which prepares students for employment, development of skills necessary for getting a job, development of awareness about career choices and alternatives)	④	③	②	①

.Daily work activities liked best (one) and liked least (one)

Which one of your regular daily work activities do you like best and which one do you like least?
(Mark only one in each column)

	Like Best	Like Least
Teaching (actual instruction)	②	①
Teaching preparation (planning and preparing lessons, getting supplies, setting up room, etc.)	②	①
Formal interaction with other staff members (conferring, organizing, etc.)	②	①
Informal interaction with other staff		

BEST COPY AVAILABLE

APPENDIX A (Cont.)

Data Description for Variables in Subset C:
Class/Curriculum Focused

B15 .Arrange for another person to take over your class so that you can be free to prepare your own work or engage in other professional activities ?

. Is it possible for you to arrange for another person to take over your class so that you can be free to prepare your own work or engage in other professional activities?

① Yes
② No

B16 .Frequency of observing instruction in classrooms other than your own in this school

. How often do you observe instruction in classrooms othe than your own in this school?

① Never
② Once or twice a year
③ Three or more times a year

.Usual teaching situation - alone or with someone else

. Indicate which one of the following best describes your usual teaching situation.

① Teach alone in a self-contained classroom
② Member of a teaching team
③ Teach with one or more aides
④ Teach alone with regular assistance from a specialist
⑤ Teach with a student teacher
⑥ Teach in a self-contained classroom with informal assistance from one or more teachers

BEST COPY AVAILABLE

APPENDIX B

DESCRIPTIVE STATISTICS FOR ALL VARIABLES

APPENDIX B

Descriptive Statistics for All Variables

Variable	Mean	Standard Deviation
RENEW	1.0000	0.0
LEVEL	1.7937	0.7965
A1	36.9965	11.1200
A2	1.5944	0.4919
A9	1.2351	0.4248
A13	2.9571	0.7931
A14	3.3852	0.5926
A33	1.2898	0.4545
A42	5.6460	4.9127
PROF	0.1077	0.5999
B64	2.6199	1.2381
B65	1.7895	0.6679
B110	3.0609	1.3330
B111	2.2294	1.2398
B113	3.7097	1.4186
B114	2.1398	1.1746
FISCMANG	1.4589	0.4531
PRINLEAD	4.5615	0.9385
STFCOHES	4.4186	0.8917
STAFINFO	2.5012	1.0475
PRINCOMF	1.8428	0.3778
B109A	1.1398	0.3474
B109B	1.5806	0.4943
INADASS	1.4336	0.3663
INADRES	1.3719	0.3709
TCB	4.2837	0.8004
INFLUSCH	1.8134	0.3620
INFLUEVL	1.2507	0.2715
B1	1.2509	0.4343
B15	1.4965	0.5009
B16	1.5664	0.7545
D11	3.9291	0.7882
TFUNC	1.5309	0.5000
CURINBEH	2.5345	0.3308
TRADBELS	4.3901	0.7389
PROGBELS	4.2330	0.6115
LIKETCHG	1.8077	0.3948
SATCON	4.1889	0.5229

APPENDIX C

DIRECTION FOR VALIDATING THE GROUPING OF "MORE" AND "LESS" RENEWING SCHOOLS

APPENDIX C

DIRECTION FOR VALIDATING THE GROUPING OF "MORE" AND "LESS" RENEWING SCHOOLS

School renewal is defined as the process of initiating, creating, and confronting needed changes so as to make it possible for organizations to become or remain viable, to adapt to new conditions, to solve problems, to learn from experience, and to move toward greater organizational maturity.

This definition was used to examine a set of interview protocols from teachers in eighteen schools to determine the "more" or "less" renewing schools. In effect, behavioral descriptions were sought to differentiate these two groups. One interview question provided the stimulus. This question was:

> What is the most important change that has occurred at this school in the last three years (or since you have been here, if newer teacher)? (Examples of change: program/curriculum; personnel; student population; school/district/state/federal policies; community/parent involvement; finance; and facilities, resources, and/or materials.)

Primarily, the respondents in "more" renewing schools identified specific problems even though the stimulus did not ask for a problem. And these problems were seen as amenable to change and as ones that the respondents were willing to deal with. In other words, on the average, teachers from more renewing schools identified problems and saw these problems as alterable. In some instances, a specific problem was not identified, but the change that the teacher identified implied a problem.

Secondarily, relatively positive sentiments were expressed toward the changes that were made in response to the problem. In effect, the teachers stated that a problem arose, some solutions were found, and, not surprisingly, since a solution occurred, they felt good about the situation.

Just the opposite appeared to exist in the responses from the teachers in schools categorized as "less" renewing. Less specific problems and often very general problems were identified or implied but the solutions to the problems had failed or the problems appeared unsurmountable. Not surprisingly, negative sentiments ran through these comments.

The task then is for the validator to read through the protocols of the teacher responses for each school and determine if, on the average, the comments reflect implied or stated problems, and if the teachers saw the problems as alterable. If alterable, then the school is to be placed within the "more" renewing group; if unalterable, it is to be placed in the "less" renewing group. This is to be done to all eighteen groups of teacher responses.

BIBLIOGRAPHY

Bassin, Marc, et al. "Developing Renewal Processes in Urban High Schools," Theory Into Practice, Vol. 18, 2, April, 1979, pp. 73-81.

Berman, Paul and Milbrey Wallin McLaughlin. Federal Programs Supporting Educational Change, Sept., 1974, Santa Monica, Calif.: The Rand Corporation, R-1589/7-HEW.

Berman, Paul and Milbrey McLaughlin. "Implementation of Educational Innovations," Educational Forum, 1976, Vol. 50, 3, 347-350.

Bedwell, Charles. "The School as a Formal Organization," in J. March (ed.), Handbook of Organizations, Chicago: Rand McNally and Co., 1965.

Bentzen, Mary. Changing Schools: The Magic Feather Principle, New York: McGraw-Hill Book Co., 1974.

Blau, Peter. The Dynamics of Bureaucracy, Chicago: The University of Chicago Press, revised edition, 1966.

Blau, Peter M. and W. Richard Scott. Formal Organizations, San Francisco: Chandler Publishing Co., 1962.

Bourdieu, Pierre. Outline of a Theory of Practice, Cambridge: Cambridge University Press, 1977.

Charters, W.W. and John E. Jones. "On the Risk of Appraising Non-Events in Program Evaluation," Educational Researcher, November, 1973.

Charters, W.W. and Roland Pellegrin. "Barriers to the Innovation Process: Four Case Studies of Differentiated Staffing," Educational Administration Quarterly 9, No. 1, Winter, 1972, 3-14.

Chilcott, John H. "The School as a Cultural System," in Chilcott, Greenberg and Wilson (eds.) Readings in the Social, Cultural Foundations of Education, Belmont, Ca.: Wadsworth Publishing Co., 1968.

Clark, David and Egan Guba. "An Examination of Potential Change Roles," paper presented at the Symposium on Innovation in Planning School Curricula, Airlee House, Va., October, 1965.

Coons, John E. and Stephen D. Sugarman. Education by Choice: The Case for Family Control, Berkeley: University of California Press, 1978.

Corwin, Ronald G. "Education and the Sociology of Complex Organizations," in Hausen and Gerste (eds.), On Education: Sociological Perspectives, New York: John Wiley and Sons, 1967.

Goodlad, John I. "An Ecological Approach to Change in Elementary School Settings," The Elementary School Journal, Vol. 78, 2, Nov., 1977.

Goodlad, John I. et al. "An Overview of a Study of Schooling," Technical Report No. 1, A Study of Schooling, Bloomington, Indiana: Phi Delta Kappa, Inc., 1979.

Goodlad, John I. "A Summary of a Study of Schooling," in process.

Goodlad, John and Frances Klein, Looking Behind the Classroom Door, Worthington, Ohio: Jones Publishing Co., 1970.

Goodlad, John I. The Dynamics of Educational Change, New York: McGraw-Hill Book Company, 1975.

Goodlad, John I. "What Goes On In Our Schools?" Educational Researcher, March, 1977.

Gross, Neal, Joseph Giacquinta and Marilyn Bernstein. Implementing Organizational Innovations: A Sociological Analysis of Planned Educational Change, New York: Basic Books, 1971.

Gross, Neal. "Some Contributions of Sociology to the Field of Education," Harvard Educational Review, Vol. 29, 4, Fall, 1959.

Gross, Neal. "Theoretical and Policy Implications of Case Study Findings About Federal Efforts to Improve Public Schools," The Annals of the American Academy of Political and Social Science, Vol. 434, Nov., 1977.

Havelock, Ronald G. Planning for Innovation Through Dissemination and Utilization of Knowledge, Ann Arbor Michigan: Center for Research on Utilization of Scientific Knowledge, 2nd printing, January, 1971.

Hawley, Willis D. "Horses Before Carts: Developing Adaptive Schools and the Limit of Innovation," in Mann (ed.) Making Change Happen, New York: Teachers College Press, 1978.

Heller, B.R. and R.S. Barrett. Expect and Improve...A Critical Review of the First Three Years of ESEA Title I in New York City, New York: Center for Urban Education, July, 1970.

Henry, Jules. "Education of the Negro Child," in Wax et al (eds). Anthropological Perspectives in Education, New York: Basic Books, 1971.

Henry, Jules. On Education, New York: Random House, 1971.

House, Ernest R. The Politics of Educational Innovation, Berkeley, California: McCutchan Publishing Corp., 1974.

Corwin, Ronald G. Reform and Organizational Survival, The Teacher Corps as an Instrument of Educational Change, New York: John Wiley and Sons, 1973.

Cremin, Lawrence. The Transformation of the School; Progressionism in American Education, 186-1957, New York: Knopf, 1961.

Cronbach, Lee J. "Validity of Inference in Applied Social Research," in Dahl et al (ed.), Spotlight on Educational Problems, 1980.

Cruz, D., J.V. Sheehan, and P.J. Sheehan. The Renewal of Australian Schools: A Changing Perspective in Educational Planning (2nd ed.), Australian Council for Educational Research, 1979.

Dalin, Per. Limits to Organizational Change, New York: St. Martin's Press, 1978.

Darlington, R.B., S.L. Weinberg and H.T. Walberg. "Canonical Variate Analysis and Related Techniques," Review of Educational Research, 1973, 43, 433-454.

Dixon, W.J. and M.B. Brown. Biomedical Computer Programs P-Series (2nd print and revision). Berkeley: University of California Press, 1979.

Dreeben, Robert. The Nature of Teaching Schools and the Work of Teachers, Atlanta: Scott Foresman Company, 1970.

Floud, Jean and A.H. Halsey. "Education and Social Structure: Theories and Methods," Harvard Educational Review, Vol. 29, 4, Fall, 1959.

Fullan, Michael and Alan Pomfret. Review of Research on Curriculum Implementation, United States: National Institute for Career Education, April, 1975.

______________. "Research on Curriculum and Instruction Implementation," Review of Educational Research, Winter, 1979, Vol. 47, 1.

Gardner, John. Self-Renewal: The Individual and the Innovative Society, New York: Harper and Row Perennial Library, 1971.

Giacquinta, Joseph B. "The Process of Organizational Change in Schools," in Kerlinger (ed.) Review of Research in Education, Vol. 1, 1973.

Glaser, Edward M. and Samuel H. Taylor. "Factors Influencing the Success of Applied Research," American Psychologist, Feb., 1973.

Golembiewski, Robert T. Renewing Organizations--The Laboratory Approach to Planned Change, ITASCA, Illinois: F.E. Peacock Publishers, Inc., 1972.

Howey, Kenneth. "Preconditions for Educational Renewal and Reform," Journal of Teacher Education, Vol. 26, 1, Spring, 1975, pp. 6-11.

Huberman, A.M. Understanding Change in Education An Introduction, UNESCO: IBE, 1973.

Katz, Michael B. Class, Bureaucracy and Schools, New York: Praeger Publishers, 1974.

Kerlinger, Frederick and Elazar Pedhazur. Multiple Regression in Behavioral Research, New York: Holt, Rinehart and Winston, 1973.

Klecka, W. "Discriminant Analysis," in NIE Statistical Package for the Social Sciences, New York: McGraw-Hill Book Co., 1975.

Klein, M. Frances, Kenneth A. Tye and Joyce Wright. "A Study of Schooling: Curriculum," Phi Delta Kappan, Vol. 61, 4, December, 1979, pp. 244-247.

Kroeber, A.L. and Clyde Kluckholn. Culture: A Critical Review of Concepts and Definitions, Cambridge, Mass.: The Museum, 1952.

Krathwohl, David R., Benjamin S. Bloom and Bertram B. Masia. Taxonomy of Educational Objectives: The Classification of Educational Goals Handbook II: Affective Domain, New York: David McKay Co., Inc., 1964.

Kuhn, Thomas S. The Structure of Scientific Revolutions, Chicago: The University of Chicago Press, 2nd edition, 1970.

Lieberman, Ann. "Linking Processes in Educational Change," in Nash and Culbertson (eds.) Linking Processes in Educational Improvement Concepts and Application, Columbus, Ohio: University Council for Education Administration, 1977.

Leichter, Hope Jensen. "Families and Communities as Educators," Teachers College Record, Vol. 79, 4, May, 1978.

Lippit, Gordon L. Organizational Renewal, New York: Appleton-Century-Crofts, 1969.

Lortie, Dan C. "Observations on Teaching as Work," in R.M. Travers (ed.) Second Handbook of Research on Teaching, Chicago, Rand McNally, 1973.

____________. School Teacher: A Sociological Study, Chicago: The University of Chicago Press, 1975.

Mann, Dale. "The User-Driver System and a Modest Proposal," in Mann (ed.) Making Change Happen, New York: Teachers College Press, 1978.

Merton, Robert K. Social Theory and Social Structure, New York: Free Press, 1968.

Metz, Mary Haywood. Classrooms and Corridors: The Crisis of Authority in Desegregated Secondary Schools, Berkeley: University of California Press, 1978.

Miles, Matthew. "Innovation in Education: Some Generalizations," in Miles, Innovation in Education, New York: Bureau of Publications, Teachers College, Columbia University, 1964.

Miles, Matthew B. and Dale G. Lake. "Self-Renewal in School Systems: A Strategy for Planned Change," in G. Waton (ed.) Concepts for Social Change, Washington, D.C.: Cooperative Project for Educational Development, NEA, 1967.

Miles, Matthew B. "Some Properties of Schools as Social Systems," in Watson (ed.) Change in School Systems, Washington, D.C. COPED NEA, 1967.

Morris, Monica. "The Public School as Workplace: The Principal as a Key Element in Teacher Satisfaction," Technical Report No. 32, A Study of Schooling, 1981.

Oakes, Jeannette. Tracking and Educational Equity: Curriculum Content, Instructional Practice, and Social Relationships in 156 Secondary English Classes, unpublished Doctoral Dissertation, University of California, Los Angeles, 1980.

O'Shea, David and Mark Ginsburg. "School as a Social System," in International Encyclopedia of Psychiatry, Psychoanalysis and Neurology, 1977.

Parsons, Talcott. "The School as a Social System: Some of its Functions in American Society," Harvard Educational Review, Vol. 29, 4, Fall, 1959, pp. 297-318.

Patterson, Jerry L. and Theodore Czajhowski. "Implementation: Neglected Phase in Curriculum Change," Educational Leadership, Vol. 37, 3, Dec., 1979.

Pellegrin, Roland T. "Schools as Work Settings," in R. Dubin (ed.) Handbook of Work, Organization, and Society, Chicago: Rand McNally College Publishing Co., 1976.

Perrow, Charles. "A Framework for the Comparative Analysis of Organizations," American Sociological Review, Vol. 32.

Roarh, Albert E. and Wallce Dairs, Jr. "Staff Development and Organization Development," in B. Dillon-Peterson (ed.) Staff Development/Organization Development, Alexandria, Va.: Association for Supervision and Curriculum Development, 1981.

Rogers, Everett. "What Are Innovators Like?", Theory into Practice, 2:252-256, December, 1963.

Rosenbleem, Sheila and Karen S. Lewis. A Measure of Challenge: The Process and Outcomes of Planned Change in Ten Rural School Districts, Final Research Report, ABT Associates, Oct. 23, 1978.

Runkle, Philip J. et al. Transforming Problems in Urban Schools Into a Capacity for Solving Problems, Eugene, Ore: Center for Educational Policy and Management, 1978.

Runkle, Philip J. and Richard Schmuck. Transforming the Schools' Capacity for Problem Solving, Eugene, Ore: Center for Educational Policy and Management, 1978.

Rutter, Michael et al. Fifteen Thousand Hours: Secondary Schools and Their Effects on Children, Cambridge, Mass.: Harvard University Press, 1979.

Sady, Rachel Reese. Perspectives from Anthropology.

Sarason, Seymour. "A 'Cultural' Limitation of System Approaches to Educational Reform," American Journal of Community Psychology, Vol. 5., 3, 1977.

Sarason, Seymour B. The Culture of the School and the Problem of Change, Boston: Allyn and Bacon, 1971.

Schlechty, Phillip C. Teaching and Social Behavior: Toward an Organizational Theory of Instruction, Boston: Allyn and Bacon, 1976.

Shipman, M.D. The Sociology of the School, London: Longmans, Green and Co., Ltd., 1968.

Schmuck, Richard et al. Renewing Urban Schools, Eugene, Ore.: Center for the Advanced Study of Educational Administration, 1979.

Shoemaker, Joan and Hugh W. Fraser. "What Principals Can Do: Some Implications from Studies of Effective Schooling," Phi Delta Kappan, Vol. 63, 3, Nov., 1981, pp. 178-182.

Simmelkjaer, Robert T. "Evolution of Our Urban Educational Reform," The Educational Forum, May, 1979, Vol. 43, 4, pp. 461-483.

Sirotnik, Kenneth A. and Jeannette Oakes. "A Contextual Appraisal System for Schools: Medicine or Madness?", Educational Leadership, Vol. 39, 3, December, 1981, pp. 164-173.

Sirotnik, Kenneth. "Psychometric Implications of the Unit of Analysis 'Problem' Measuring Organizational Climate as a Case in Point," A Study of Schooling, Technical Report, No. 3, 1981.

Sirotnik, Kenneth A. "Development and Psychometric Analysis of Major Scales Utilized in A Study of Schooling," A Study of Schooling, Technical Report, No. 4, 1979.

Sussman, Leila. Tales Out of School, Philadelphia: Temple University Press, 1977.

Taylor, James. "The Social System," Human Systems Development Study Center, University of California, Los Angeles, April, 1977.

Thompson, James D. and William McEivers. "Eleven Organizational Goals and Environment: Goal Setting as an Interaction Process," in Blankenship (ed.) Colleagues in Organization, the Social Construction of Professional Work, New Y ork: John Wiley and Sons, 1977.

Tukey, John W. Exploratory Data Analysis, Reading, Mass.: Addison-Wesley Publishing Co., 1977.

Tye, Kenneth A. and Jerrold M. Novotney. Schools in Transition. The Practitioner as Change Agent, New York: McGraw-Hill Book Company, 1975.

Vandenberghe, R. "The Autonomous School: Two Approaches," International Seminar on Strengthening School Capacity for Change, November 21-23, 1979, The Hague, Netherlands.

Waller. The Sociology of Teaching, New York: John Wiley and Sons, Inc., 1932.

Wargo, Michael T. et al. ESEA Title I: A Reanalysis and Synthesis of Evaluation Data from Fiscal Year 1965 Through 1970, Final Report, Palo Alto, California: American Institutes for Research, March, 1972.

Wilson, Stephen. An Introduction to the Reform Strategy Which Stresses the Development of Urban School Capacities for Problem Solving, paper presented at the Annual Meeting of the American Educational Research Association, Toronto, March, 1978.

Wise, Arthur E. Legislated Learning, Berkeley: University of California Press, 1979.

Wright, David. "Teachers' Educational Beliefs," A Study of Schooling, Technical Report, No. 14, 1981, distributed by the Laboratory in School and Community Education, Graduate School of Education, University of California, Los Angeles.